October 1999

The Commercial Business Environment:
Accelerating Change Through Enterprise Teaming

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Report of the Department of Defense (DoD) Section 912(c)
Commercial Business Environment Study Group

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THE UNDER SECRETARY OF DEFENSE

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ACQUISITION AND
TECHNOLOGY

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
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DIRECTORS OF THE DEFENSE AGENCIES
PRESIDENT, DEFENSE ACQUISITION UNIVERSITY
COMMANDANT, DEFENSE SYSTEMS MANAGEMENT COLLEGE

Subject: Section 912(c) Commercial Business Environment Final Report

In conjunction with the other related 912(c) efforts, I directed the establishment of a study group to develop a program aimed at recommending training on commercial business practices. Attached is the Final Report, *The Commercial Business Environment. Accelerating Change Through Enterprise Teaming,* which provides recommendations for an implementation strategy for adopting effective commercial business practices to achieve the Revolution in Business Affairs.

This is an important Report and contains many sound ideas. I am, therefore, directing the Deputy Under Secretary of Defense (Acquisition Reform) to take immediate action on the Report's key recommendations, each of which cumulatively should affect change in the way we currently conduct business:

1) Establish a Change Management Center (CMC) to take the lead in accelerating acquisition and logistics reform initiatives, while providing a resource for change management across the Department;
2) Explore using the CMC to help the Defense Acquisition University adopt key attributes of the corporate university approach to provide education and training for the acquisition, technology and logistics workforce; and
3) Pursue and incorporate, where possible, cross-functional teaming across the Defense business enterprise to accelerate organizational goals and manage change.

For additional copies of the report, please contact Mr. William Mounts at (703) 614-3882 or mountsw@acq.osd.mil. The report may also be downloaded at http://alpha.imi.org/cbe/.

J. S. Gansler

Attachment:
As stated

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Foreword

The report of the Commercial Business Environment Section 912(c) Study Group, *The Commercial Business Environment: Accelerating Change through Enterprise Teaming,* sets forth a vision for adopting fundamental commercial best practices within the DoD business enterprise. These practices are cross-functional teaming across the enterprise and managing change, while creating and maintaining a learning organization that seeks out and adopts best practices to improve individual and organizational performance. The report describes the application of these practices to "Team Acquisition," a cross-functional approach to the end-to-end management of acquisition that embraces best practices, empowers all enterprise players, and achieves optimal solutions in support of the warfighters.

The report details a business model and provides an implementation plan for accelerating and managing change that DoD can use to transition to a "Team Acquisition" type organization. The model uses rapid improvement teams to inculcate teaming across the enterprise to achieve organizational goals. This change model could be used to accelerate the Revolution in Business Affairs and implement the recommendations found in other Section 912(c) studies.

I appreciate the hard work of the Commercial Business Environment Study Group, which was comprised of government, industry, association, and academia participants. The group had a complex task and initiated several pilot and demonstration programs. I pledge my support to the implementation efforts will continue to focus my attention on teaming across the business enterprise and accelerating the Revolution in Business Affairs, while seeking to foster the environment that will permit these initiatives to thrive. I look forward to working with the DoD components, the DoD requirements and comptroller communities, the Congress, industry, and academia as we use the commercial business environment as a benchmark for meeting the customer requirements of our warfighters.

J. S. Gansler

Under Secretary of Defense
Acquisition and Technology

Executive Summary

What we are doing is providing a corporate vision for the Department of Defense. The QDR developed a defense strategy to protect and to promote American interests well into the 21st Century, and we want to ensure that we continue to lead a world of accelerating change.[1]

Much of what the DoD will accomplish through the Revolution in Business Affairs depends on taking advantage of the technology and management lessons found in world-class commercial companies that have maintained the U.S. leadership position in worldwide commerce. This does not mean that government can or should be made to operate exactly like a business. Instead, to achieve the goals of the Revolution in Business Affairs, the Department should adopt within its organization and workforce the cultural values found in the commercial segment of the U.S. economy.

The Commercial Business Environment Study Group, which was chartered to identify training on commercial business practices for the DoD acquisition workforce, believes adopting the most effective commercial business practices requires a cultural and organizational transformation within the DoD. The transformation, which must actively engage the military components, will facilitate the DoD adapting, to the extent practicable, the characteristics of successful world-class organizations:

- Teaming cross-functionally across the enterprise to achieve organizational goals and manage change, while
- Maintaining learning organizations that seek out and adopt best practices that improve individual and organizational performance.

This transformation could be accomplished using a business model employed by world-class corporations to manage and accelerate change. The study group believes use of this model by the DoD is the key to organizational transformation in the Department and the key to success in the Revolution in Business Affairs. The model will help the DoD transition from organizations and processes that result in functional silos and lengthy review cycles, which stifle the acquisition process, discourage individuals from taking initiative, and foster a culture that hinders reform. The business model that the DoD should use to effect an organizational transformation contains the following elements:

[1] Secretary of Defense William S. Cohen, DoD news Briefing, 10 November, 1997.

- A performance scorecard—a tool to measure the effectiveness of the change acceleration model.

- A senior leader jumpstart program—a program to coach senior leaders so that they can understand the changes required to meet these goals and then coach and direct the people who work for them along similar lines.

- Action acceleration workshops—the mechanism that senior leaders will use to enlist others as change agents in implementing the plan to accelerate the Revolution in Business Affairs through project-by-project demonstrations throughout the DoD.

- Rapid improvement teams—the next management tier implementing team-based application workshops; the participants will apply what they have learned to redesign their processes.

- A mission support office—headed by a DoD senior leader and sponsored by the Secretary of Defense, the mission support office will provide:

  - Real-time support to each rapid improvement team leader to help ensure success.

  - Coaches—individuals who will serve as mentors with the mission of leaving change management skills resident with the team leaders at the completion of the projects.

  - Education and training in courses that teach the skills necessary for sustaining the Revolution in Business Affairs.

  - A knowledge management infrastructure to accelerate improvement by transferring information in meaningful ways, to facilitate learning, to reinforce the reuse of information, and to create language and enshrine war stories that reinforce new expectations and behavior.

The Department should use this business model to fashion new roles and responsibilities that focus on adopting commercial business practices by "transforming the organization as a team." The study group recommends "Team Acquisition," a cross-functional approach to acquisition, which embodies a cultural transformation to an environment that strategically adopts best practices, to dramatically and measurably improve both the quality and the end results of all decisions made to support the troops. The three fundamental principles that Team Acquisition will embody are:

- Good business judgment must drive DoD business decisions while still preserving the public trust;

- Defense business professionals must have authority commensurate with their responsibility; and

- Cross-functional teaming, involving industry participants when appropriate, must become the norm for ensuring quality results throughout the acquisition process.

Team Acquisition will inculcate those engaged in serving the customer to renew their focus on the mission, use common sense, mitigate risk, and strive constantly for optimal results at a reasonable cost. Senior A&T leaders must empower subordinates to do their part and have confidence in their results, work within legal boundaries, protect the public trust by avoiding even the appearance of any impropriety, and balance the interests of all constituents. Finally, an incentive and rewards system for both civilian and military personnel that supports and encourages acquisition innovation, goal achievement, and leadership is necessary to ensure rapid and meaningful change. Performance appraisals at all levels are likely to evolve to measure and reward personnel consistent with enterprise teaming. Scorecards will measure the effectiveness of Team Acquisition externally (as rated by stakeholders: warfighters, the general public, and suppliers) and internally (as measured against performance indicators: role-specific and shared).

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Chapter 1
The Commercial Business Challenge

OVERVIEW

The Department of Defense (DoD) seeks to accomplish through its reform initiatives the introduction of many practices and techniques that, while successful in the commercial environment, are neither often nor consistently practiced in the government arena. To remedy this, the Secretary of Defense reported to Congress under Section 912(c) of the National Defense Authorization Act for Fiscal Year 1998, his intent to direct the Under Secretary of Defense (Acquisition and Technology) to develop a program specifically aimed at providing training on best commercial business practices.

The Under Secretary chartered the Commercial Business Environment Study Group (participants are identified in Appendix A) to determine how to develop organic training or identify training on commercial business practices for the acquisition workforce within the DoD. Additionally, the study group was tasked to work in partnership with the private sector to the extent practicable. The group had the following charter objectives:

- Determine the target audience for commercial business practices training.
- Develop a strategy for implementing and deploying commercial business practices training.
- Propose new or modified training courses for acquisition workforce certification under the Defense Acquisition Workforce Improvement Act.
- Determine the resource requirements for implementing a recommended strategy.

METHODOLOGY

From the outset, the group decided upon a clean sheet approach that included presentations and discussions on topics such as acquisition in the future, education and training delivery methods, cultural change, and how best to align strategically for the future.

The Department's acquisition workforce is large, aging, and possesses diverse skills. Because of the Defense Acquisition Workforce Improvement Act, as well

as other successful department-wide education and training initiatives and activities, new hires are more likely to be college educated than their peers with 20 years of service. Furthermore, the skill level of the workforce is quite diverse, as younger employees, educated during the 90s, usually possess greater technical skills than their older, more experienced counterparts. According to the recent National Association of Purchasing Management (NAPM) study, *The Future of Purchasing and Supply a Five- and Ten-Year Forecast*[1], corporations are buffeted by similar trends.

As the business of acquisition relies more on technology, becomes more global, and redefines the customer/supplier roles and supply chain management, the ability to quickly educate a workforce in reaction to a rapidly changing business environment has become a cultural and competitive imperative. Two NAPM projections that are key to this study group's efforts are that transactional work (e.g. ordering, quoting, and expediting) will be automated or done by contract labor, and that the remaining acquisition workforce needs to transition to business managers and knowledge workers. Creating a learning organization is crucial to efforts to maintain a workforce that quickly adapts and embraces the best practices to the particulars of their environment.

When examining corporate universities, the study group found that education and training in the commercial business environment is not a discrete function segregated from other corporate business. Instead, corporate universities are often used as a management tool to roll out change initiatives,[2] successfully implement changes into operations, and sustain change by creating a learning culture.[3] The success of corporate universities acting as change agents was evidenced to the study group by the examples of the Patent and Trademark Office, Motorola University, and AT&T.

In the commercial business environment, education and training are used to develop, refine, reinforce, and maintain knowledge and behaviors that characterize world class organizations. Education and training are tools to accelerate change in the organization, but they alone are insufficient to foster the fundamental changes needed by DoD acquisition. The study team believes substantial, measurable benefit would accrue to DoD through the adoption of two key characteristics of world class organizations. These are:

- Cross-functional teaming across the enterprise to achieve organizational goals and manage change, while

[1] *The Future of Purchasing and Supply: A Five- and Ten-Year Forecast.* Tempe, Ariz.: Center for Advanced Purchasing Studies, 1998.

[2] Motorola University. Presentation to the Commercial Business Environment Study Group. 18 December 1998.

[3] Slater, Robert. *Jack Welch and the GE Way.* New York: McGraw-Hill, 1999: 5.

- Creating and maintaining a learning organization that seeks out and adopts best practices to improve individual and organizational performance.

Both of the above facilitate the alignment of systems, processes and individual behaviors within an organization to develop, sustain, and constantly improve customer focus. This is another key characteristic of world-class organizations.[4]

ENTERPRISE TEAMING: TEAM ACQUISITION

Enterprise teaming could benefit the entire DoD business enterprise. However, the study group focused on acquisition because the Section 912(c) studies were focused on the acquisition organizations, workforce, and infrastructure to support defense strategy into the 21st century. Acquisition is an area where the benefits of teaming across the enterprise to create a truly customer-focused would be immediately apparent. In order to best support the warfighters, all DoD communities that are touched by an acquisition—users, finance and accounting personnel, suppliers, as well as those traditionally considered acquisition personnel, must work together as a team. The comptroller community's involvement is particularly critical for success and has been absent from previous teaming efforts to improve the acquisition process. Depending on the acquisition, teaming could also include the infrastructure community that supports base contracting, the logistics community that ensures warfighter needs for spare and repair parts are met, and the transportation community that moves acquired items to the warfighter. To bring these diverse communities together, the Department should adopt a concept the study group has termed "Team Acquisition."

ACCELERATING THE TRANSITION

The study group used a commercially facilitated strategic alignment session to develop a DoD enterprise vision in which the key characteristics of world-class commercial organizations would operate. U.S. world-class commercial companies have demonstrated that in order to become competitive it is necessary to focus on time as the critical variable.[5] Time measurements play a major role in the Malcolm Baldrige National Quality Award Criteria for Performance Excellence.[6]

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[4] According to: U.S. Department of Commerce. *Malcolm Baldrige National Award 1998 Criteria for Performance Excellence*. Gaithersburg, MD (1998): 3, "alignment" refers to consistency of plans, processes, actions, information, and decisions among an organization's units in support of key organization-wide goals. Effective alignment requires common understanding of purposes and goals and use of complementary measures and information to enable planning, tracking, analysis, and improvement at three levels: the company level, the key process level, and the work unit level.

[5] Jacques S. Gansler, Speech to the Industrial College of the Armed Forces, January 23, 1998.

[6] U.S. Department of Commerce. *Malcolm Baldrige National Award 1998 Criteria for Performance Excellence*. Gaithersburg, MD (1998): 3.

The group focused on a business model that would accelerate a transition to a learning organization that embraces best practices, empowers all enterprise players, and achieves optimal solutions at affordable costs in support of the warfighters. The group concluded that an enterprise change acceleration model should be used to manage change and accelerate the transformation to the new culture. This model uses rapid improvement teams to inculcate teaming across the enterprise and to create a learning organization to improve individual and organizational performance.

SCORECARD

A fundamental precept of the Team Acquisition concept and enterprise change acceleration model detailed in this report is that goals must be identified, and the accomplishment of those goals must be measured against an enterprise scorecard. The DoD should also use an accelerated reform scorecard to measure the success of the change acceleration model in expediting the achievement of reform targets. That scorecard should measure the following areas:

- Attainment of DoD outcomes,
- Customer/supplier/employee satisfaction, and
- Achievement of reform targets.

REPORT ORGANIZATION

This report outlines the study group's vision and recommendations for adopting practices found in the commercial business environment and provides a comprehensive plan for implementing them. Chapter 2 sets forth the vision for teaming across the Defense enterprise and provides an overview of the enterprise change acceleration model. Chapter 3 details the application of cross-functional, enterprise teaming to acquisition. The chapter proposes a Team Acquisition approach, identifies the new roles and responsibilities on that team, and sets forth a suggested curriculum for fostering these new roles. Chapter 4 details a model for accelerating and managing change that has been used successfully by world-class organizations. This chapter also describes the critical role of measurable performance scorecards in the implementation of the change model. A timeline for an eighteen-month campaign to accelerate the Revolution in Business Affairs is also presented in Chapter 4. Chapter 5 explains the vital role that a proposed mission support office will play in sustaining reform momentum. Chapter 6 discusses the need for DoD training modeled on a corporate university to institutionalize key organizational change initiatives within the A&T workforce. Finally, Chapter 7 summarizes the recommendations made throughout this report.

Chapter 2
The Vision for Creating Enterprise Teaming and Accelerating Change

INTRODUCTION

The Commercial Business Environment Study Group's review of commercial practices found that commercial enterprises use education and training to develop, refine, and maintain key characteristics of world-class organizations. These characteristics are: cross-functional teaming across the enterprise to achieve organizational goals, and creating and maintaining a learning organization that strives to identify best practices[1] and adopt those practices to improve individual and organizational performance. Successful commercial organizations are constantly evolving to remain efficient, which requires a mastery of quickly and effectively implementing improvements. To embrace these world-class commercial characteristics, DoD must undergo an organizational and cultural transformation. In order to achieve a transformation of the envisioned magnitude, DoD must actively engage the military components.

This chapter discusses a vision for cross-functional teaming across the Defense business enterprise and a model for accelerating improvements. The vision is not based on a wholesale departure from the traditional practices, nor is it based on a belief that government can or should be made to operate exactly like industry. Rather, it is based on DoD facilitating, through a commercially proven enterprise change acceleration model, adoption within its organization and workforce the cultural values that make the U.S. economy the envy of the world. The reports generated by the various 912(c) study groups suggest many quality improvements that would benefit from a mechanism to rapidly implement reforms. This chapter outlines an organizational structure in which those reforms will flourish and a model for accelerating the transition to such an organization.

THE VISION

Best practices must be adopted—from both industry and government—to improve the quality and end results of Defense enterprise decisions. Teaming across the enterprise and rapid implementation of improvements are practices that should be adopted by the DoD. In the acquisition arena, the DoD can transform its business

[1] The term "best practices" is used in this report to connote proven, successful ways of achieving organizational goals, whether in government or in industry. The continuous search for better ways of performing is itself a best practice.

processes by redirecting the collective energies of the workforce toward a new, end-to-end supply chain management process.

Although the entire DoD would benefit from the practice of enterprise teaming, acquisition is one area where it would be extremely beneficial. The Defense enterprise must become one in which the end user—the warfighter—not only is supported by, but is a member of a team comprised of representatives from all elements of the DoD and, where appropriate, supporting commercial organizations. The envisioned integrated team is not just the ever-smaller government team, but a total, integrated team—including suppliers. This team conducts business by managing processes from end to end and making full use of the functional knowledge and input of every team member. The team members are empowered to exercise authority equal to their responsibility, and team decisions are characterized by the use of good business judgment and flexibility.

The effort to create such a cultural change must be supported by committed and skilled leaders at all levels and a tool—the enterprise change acceleration model—to speed beneficial change initiatives. DoD enterprise teaming and future reform improvements should be implemented at the same rapid pace sustained by world-class commercial enterprises. By adopting an enterprise change acceleration model, the Department could quickly and efficiently make the required changes.

CROSS-FUNCTIONAL ENTERPRISE TEAMING

The study group's review of commercial businesses found widespread use of cross-functional teaming across the enterprise to support an organization's overall mission, particularly with regard to supply chain strategies.[2] For example, in the context of acquisition, leading companies have transformed their purchasing practices and are aggressively adopting and fine-tuning a model of supply chain

[2] *The Future of Purchasing and Supply: A Five- and Ten-Year Forecast* is replete with references to the increasing importance of supply chain strategies. This report predicts an increase in the importance of supply chain management in terms of competitive strategies, strategic cost management, strategic sourcing, relationship management, and performance measurement—in short, from end to end of the acquisition. (Center for Advanced Purchasing Studies and National Association of Purchasing Management. *The Future of Purchasing and Supply: A Five- and Ten-Year Forecast.* Tempe, Ariz.: Center for Advanced Purchasing Studies, 1998.)

management, which is also known as value chain management, end-to-end management, and horizontal process management.[3]

Just as commercial companies require their acquisition employees to work in tandem to fulfill the company's goals, so must members of the DoD work together to fulfill the Department's single integrated acquisition mission: support the warfighters. This report uses the example of enterprise teaming to support acquisition, but the principle of enterprise teaming applies across the DoD enterprise.

Enabling Cross-Functional Enterprise Teaming

To enable enterprise teaming to support acquisition, the following key tenets must be embraced by Defense enterprise leaders at all levels:

- Good business judgment rather than an interpretation of rules must drive DoD business decisions.
- Defense business professionals must have authority commensurate with their responsibility.
- Empowered cross-functional teams, including industry participation when appropriate, must become the norm for ensuring quality results throughout business processes.

Each of these tenets is discussed in further detail, along with an acquisition example of teaming across the DoD enterprise, "Team Acquisition," in Chapter 3.

ACCELERATING CHANGE

The study group's commercial business environment review clearly revealed the use of change acceleration techniques to increase the efficiency (and, consequently, the competitiveness) of world-class companies. For example, many leading companies such as General Electric, Motorola, and Telstra use the enterprise change acceleration model detailed in Chapter 4 to quickly implement needed reforms.

[3] According to: Bernazzani, Judith P. "An Introduction to Supply Chain Management: Surviving and Thriving in the Modern Marketplace." *Topical Issues in Procurement Series*, vol. 7, no. 7. Vienna, Va.: National Contract Management Association. July 1996: 1, "Supply chain management" describes the process of planning, implementing, and controlling the flow—both internal and external—of goods and information all the way from the original source to the final customer—from the supplier's supplier to the customer's customer. The objective of this approach is to create value for all members of the supply chain by maximizing customer service and asset utilization, while minimizing total delivered cost through improved coordination, cooperation, and collaboration.

Just as commercial enterprises require the use of a systematic model to implement change initiatives quickly and effectively across their organizations, so will the DoD benefit from a proven model to swiftly implement the changes needed to support the warfighters most efficiently.

The key means of enabling the acceleration of improvements go beyond just education and training, which of course must be embraced by Defense enterprise leaders at all levels. Going beyond education and training must occur through a proven model geared toward managing change efficiently. The change acceleration model used in the commercial business environment has a three-tier approach to educating the enterprise on forthcoming change:

- First, senior leaders become change advocates who can coach and direct their subordinates.
- Second, managers from the next level of top management attend similar training through team-based, action-acceleration workshops. These are designed to prepare and mobilize rapid improvement teams that will attack target reform opportunities.
- Third, teams apply what they have learned in the workshops to achieve the desired results of the change endeavor.

Each of these components is discussed in further detail in Chapter 4 to illustrate a model for how DoD can accelerate change.

LEADERSHIP

Both teaming across the enterprise and the change acceleration model require leadership commitment. Together, they will enhance an effective leadership system.[4] According to the *Malcolm Baldrige National Quality Award 1998 Criteria for Performance Excellence*, an effective leadership system creates clear values respecting the capabilities and requirements of employees and other organizational stakeholders and sets high expectations for performance and performance improvement. It builds loyalties and teamwork based upon the values and the pursuit of shared purposes. It encourages and supports initiative and risk taking, subordinates organization to purpose and function, and avoids chains of command that require long decision paths. An effective leadership system includes mechanisms for the leaders' self-examination, receipt of feedback, and improvement.

[4] According to: U.S. Department of Commerce. *Malcolm Baldrige National Award 1998 Criteria for Performance Excellence*. Gaithersburg, MD (1998): 3, "leadership system" refers to how leadership is exercised, formally and informally, throughout the organization—the basis for and the way that key decisions are made, communicated, and carried out. It includes structures and mechanisms for decision making, selection and development of leaders and managers, and reinforcing values, practices, and behaviors.

The Defense Leadership and Management Program (DLAMP) provides the departmental framework for leadership development.

COMMERCIAL BUSINESS ENVIRONMENT EDUCATION AND TRAINING PILOT PROGRAMS

The study group believes so strongly in the teaming and accelerated improvement principles that it has undertaken three pilot programs that mirror the vision presented in this report. First, in cooperation with the National Association of Purchasing Management (NAPM) and the National Contract Management Association (NCMA), the DoD offers an online course, "Integrating Commercial Practices with Government Business Practices, Program I: Managing Suppliers" (http://www.ncma-napm.org), which not only focuses on the topic of commercial practices, but also encourages a team approach to the course. More details on the NAPM–NCMA pilot program are presented in Chapter 5.

Second, the Army and the Defense Acquisition University have partnered with the University of Virginia's Darden Graduate School of Business to develop a course titled "Competing in a New Business Environment: A Program for Defense Acquisition Executives." This customized pilot course was developed to instill knowledge of what drives private-sector business decisions, including the practice of teaming with suppliers. More details on the Darden pilot program are presented in Chapter 5.

Finally, to demonstrate the effectiveness of accelerated change, the study group established a rapid improvement team to accelerate improvements to the Commercial Packaging Program. More details on this team are presented in Chapter 4.

SUMMARY

Two key lessons learned from the commercial business environment should be applied to the DoD. One such lesson is that cross-functional teaming across the enterprise is essential in world-class companies. The other is the importance of change management to top-notch organizations that must constantly reinvent themselves to remain in the lead. These two principles, which are inextricably interrelated, form the core of this report's recommendations. In order to embrace a team environment, the Department must change. And, to effectively manage change, the Department must team together across the enterprise. The vision of these two complementary concepts is set forth in the remainder of this report, beginning first with teaming across the enterprise, in Chapter 3.

Chapter 3
Cross-Functional Enterprise Teaming: The Team Acquisition Example

OVERVIEW

Although the entire Department would benefit from the practice of enterprise teaming, acquisition is one area where the need for teaming across the enterprise is immediately apparent. Many outside the acquisition community have a significant stake in any given acquisition. The customers, the DoD financial community, suppliers, and the general public must be recognized in a successful acquisition. In order to best support the warfighters, all of the DoD communities that are touched by acquisition must work together as a team as early as possible. This includes the community responsible for funding, the infrastructure community that supports base contracting, the logistics community that ensures warfighter needs for spare and repair parts are met, and the transportation community that moves acquired items to the warfighter. To bring these diverse communities together, the Department should adopt a concept the 912(c) Commercial Business Environment Study Group has termed "Team Acquisition."

THE CHALLENGE

Alone, the requirements process in the Department is not sufficient for enabling best-practice supply chain management.[1] As the anchor of the acquisition process, the requirements phase must occur in a cross-functional environment in which all players agree on what they want and what tradeoffs are acceptable. The players—including the end user and the suppliers—must form a team that can fully define the requirements and develop realistic cost estimates from the beginning. Among other things, joint development of realistic cost estimates will improve funding stability. Warfighters will be clearly responsible for developing the rough order of magnitude of their requirements, and various acquisition players must be responsible (based on their market expertise and analysis) for developing and presenting to the warfighters a range of tradeoffs and qualified alternatives. The goal is an

[1] As originally set forth in Chapter 2, the term "supply chain management" is used in this report to describe the process of planning, implementing, and controlling the flow—both internal and external—of goods and information all the way from the original source to the final customer—from the supplier's supplier to the customer's customer. The objective of this approach is to create value for all members of the supply chain by maximizing customer service and asset utilization, while minimizing total delivered cost through improved coordination, cooperation, and collaboration.

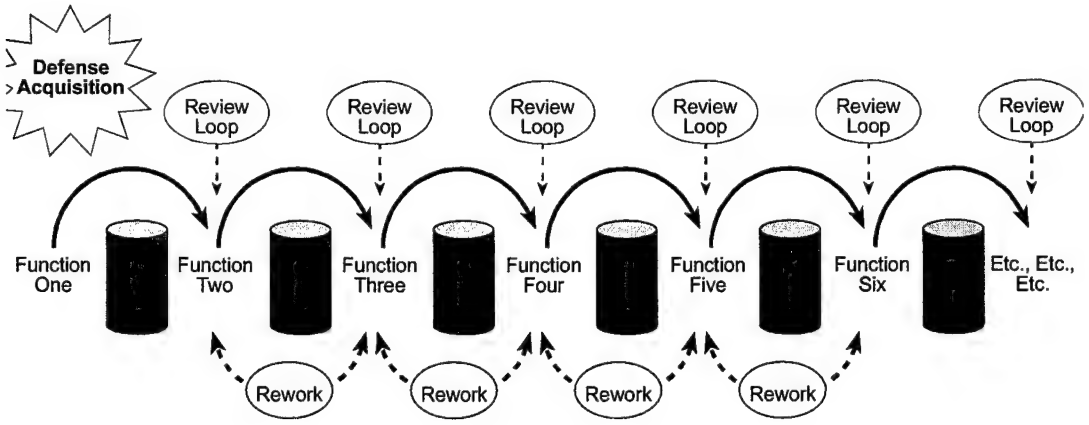
ultimate collaboration within the team, within certain parameters and with acceptable tradeoffs.

Similarly, the funding process as the Department knows it often falls short of the mark. An integrated, customer-focused team approach must be supported by complementary financial processes, including appropriations, budgeted accounts, and working capital funds. However, the Defense working capital fund structure is not currently organized to support the Team Acquisition approach because it uses activity groups (business areas that have separate budgets) to fund supply, maintenance, and transportation functions. Additionally, most Defense working capital fund activities are transaction oriented.

Program stability depends on funding stability. The comptroller community, which controls the funding, is an important player that should be represented in Team Acquisition. One important contribution a comptroller representative would bring to the team is an understanding of financial management. As part of the team, the comptroller representative would be able to help develop an up-front strategy to achieve funding stability to best support the warfighters.

While DoD has made improvements through the commendable efforts of its workforce in the past five years, Defense acquisition is still hampered by functional silos, lengthy review points, and a rule-based environment. Together, these factors stifle the acquisition process, discourage individuals from taking initiative, and lead to a culture that does not foster teaming. Each silo is an area of functional expertise that should support and facilitate an acquisition. However, as illustrated in Figure 3-1, these functional silos and the lengthy review points they demand fragment an acquisition, causing continual rework and delays as well as continuous coordination efforts that delay the process. While various Acquisition Reform efforts have been undertaken to break down these barriers, and many individuals within the workforce deserve credit for doing a good job, success has not been complete; where successes have been achieved, they are not universal. Even within services, success is mixed. Currently, there is no single point of ownership where responsibility is matched with the authority for balancing stakeholder interests on each acquisition request.

Figure 3-1. Defense Acquisition: Functional Silos and Lengthy Review Points



The importance of bringing together diverse functions to support an acquisition is recognized by the existence of the program management discipline and the program management reviews conducted for major systems. However, cross-functional communication is neither frequent nor sufficient across the enterprise, and true partnerships with industry are frequently weak or nonexistent. The importance of integrated teams—including members from diverse DoD communities—has been acknowledged through the integrated products team (IPT) initiative. However, even when IPTs bring their expertise to an acquisition, some members may still tend to put the interests of their respective communities first. Further, initiatives are sometimes disapproved because they are unproven, "not invented here," or judged quickly by a risk-intolerant staff or decision maker.

THE BENEFITS OF CROSS-FUNCTIONAL TEAMING

In addition to overcoming the barriers cited above, one of the most important aspects of successful cross-functional teaming across the enterprise is the motivation that is generated among the team members once mutual trust has been established and roles are clearly defined. Individuals that are part of a well-functioning team usually gain much more enjoyment from simply doing their jobs and are willing to work harder to achieve the team's goal. Members freely share their new ideas but do not always expect that those ideas will be used. Instead, it is enough that each member feels he or she is making an important contribution to something bigger and more important than their individual role. Previously stifled creativity begins to flow and new ideas and approaches take precedence. Although the team is seen as a single functioning entity, a successful team understands the importance of recognizing individuals in the group for their individual contributions to the whole.

Teaming with key suppliers has proven valuable to commercial companies. Appendix B presents case studies highlighting success stories at organizations such as Honda, Chrysler, Deere & Co., and Glaxo Wellcome, Inc.

DoD itself has experienced significant benefits from teaming across the enterprise. The Defense Acquisition Pilot Programs (DAPPs) have already demonstrated that cross-functional teaming is an effective and efficient method for achieving the goals of the Revolution in Business Affairs. (Appendix B presents case studies highlighting government teaming success stories.) However, such success stories are the exception rather than the rule. The study group's vision will build upon the successes of the DAPPs, learn from the success stories of commercial companies, and institutionalize effective cross-functional teaming throughout the Defense enterprise.

TEAM ACQUISITION

The old, narrowly focused culture must metamorphose into one that, in the acquisition context, builds on the successes of outstanding individuals in the acquisition workforce, strives to optimize results, seeks out and uses best practices, and makes prudent decisions that are in the best interests of the customer, irrespective of organizational self-interests. In this way, Team Acquisition begins where the IPT leaves off.

Team Acquisition's sole purpose is the end-to-end management of acquisition, for which the mission needs each team member's expertise without his or her cultural baggage. From the team's perspective, the only constituent that matters is the customer, who, in effect, becomes the bottom line that each team member will try to optimize. This metaphor is part of what adapting business practices to the Defense environment means. Where a business optimizes the bottom line to increase shareholder value, Team Acquisition optimizes the acquisition to increase the warfighters' well being. The study group's vision will enable all of the DoD's diverse components to work together, just as they do during wartime, to fulfill their joint mission of supporting the warfighters.

The section below presents the enabling foundation needed for the Team Acquisition environment; namely, good business judgment, appropriate authority, and empowered cross-functional, government–industry teaming. Next, the five roles envisioned for Team Acquisition are discussed, followed by the common core competencies required for Team Acquisition. Finally, the specific roles and behaviors that will make Team Acquisition the premier example of teaming across the Defense enterprise are presented.

Enabling Team Acquisition

To enable team acquisition, good business judgment within legal confines, appropriate authority, and cross-functional teaming are essential. These were among the

elements that helped the Air Force–Navy Joint Direct Attack Munitions (JDAM) program work well. Some of the elements that contributed to the success of JDAM were:

- Authority was given to the program manager (PM) to determine a strategy for the program and execute it,
- The PM was held accountable for results,
- Program strategies used concepts derived from commercial practices,
- Program strategies focused on long-term business arrangements and industry responsibility for making program decisions with top-level boundaries,
- The behavior needed to successfully execute the program was instilled in the team through training,
- Industry was treated as a full partner and teammate,
- Program goals were established to manage the business relationship, and
- Early buy-in was obtained from the requirements community on the business approach taken (i.e., what performance requirements could be traded in the interest of affordability).

Below, specific details are offered on the operating tenets of the key components of Team Acquisition—good business judgment, appropriate authority, and empowered cross-functional teaming.

OPERATING TENETS FOR EXERCISING GOOD BUSINESS JUDGMENT

Moving away from a largely rule-based decision environment to one in which good business judgment drives decisions involves the following key operating principles:

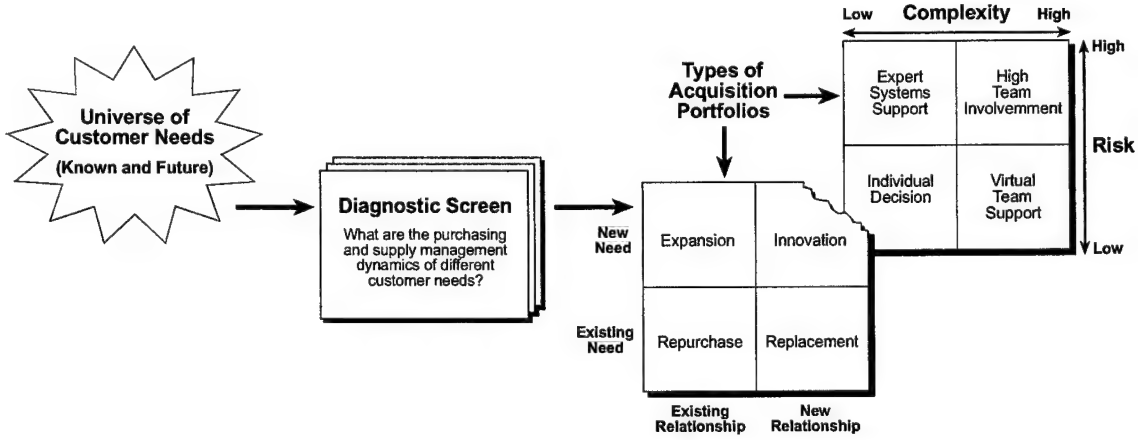
- Exercising good judgment means:
  - Focusing on the mission;
  - Using common sense;
  - Mitigating and managing risk;
  - Striving constantly for optimal results at an affordable cost;
  - Empowering subordinates to do their part and trusting their results;

- Working within legal confines and avoiding even the appearance of impropriety; and
- Balancing the interests of all constituents, including delivery of quality products to the warfighter, value and fairness to the public, and commercial well-being and health to industry partners.

- Maximum flexibility is exercised within existing rules, and behaviors that are not in the best interests of the DoD (e.g., organizational rules for the decision-making process) are challenged.
- Prudent risk-taking is an inherent part of using good business judgment and is rewarded rather than punished. Knowing when to take a risk is a skill born out of experience—this behavior will not take root in an environment that simply punishes risk taking.
- Failure to learn from business mistakes is unacceptable.
- Good judgment requires courage and means occasionally taking an unpopular position, perhaps shedding light on a failing program or questioning a customer's request when it appears that all constituents' interests are not being served in a balanced manner.

Exercising good business judgment is necessary because acquisitions are not all the same and should not be managed in the same way. Figure 3-2 illustrates how individual approaches, including the level of teaming required, should be tailored on the basis of such factors as the status (i.e., new or existing) of the customer's need and the parties' relationship, as well as the level (i.e., high or low) of the risk and the complexity.

Figure 3-2. Portfolio Approach to Acquisition Management



Team Acquisition features a model in which acquisition processes are tailored to fit the dynamics of applying good business judgment to respond efficiently and effectively to differing customer needs. In the Team Acquisition model, innovative business and acquisition expertise are merged with purchasing and supply management dynamics, normally in a team environment. Optimization is achieved when a team composed of representatives across the enterprise manages cost, quality, and cycle-time drivers simultaneously.

OPERATING TENETS FOR AUTHORITY AND RESPONSIBILITY

Key operating principles are also involved in moving from an environment where decision-making authority is often distanced from the relevant facts, data, suppliers, and customers, to one where decision-making authority explicitly rests with the individual or team in the best position to exercise prudent business judgments. The tenets that will instill this practice are:

- Decision-making authority rests with the team or organization that must live with the consequences of the decision.
- Elevating decisions to a higher authority should be done sparingly but can be a prudent business practice, especially when there is a high degree of financial risk. Once a decision has been made, the decision-maker(s) should not be second-guessed or criticized.
- To accelerate learning and reward superior performance, disseminate any valuable lessons from past decisions. Other organizations will reap the benefits.
- Whenever possible, decision-makers are expected to use their authority to accelerate business processes, provided that the public good is not compromised.
- Long-term gains and relationships should not always be sacrificed to satisfy short-term constraints. (For example, the current-year bill-paying exercises often see the duration of programs being stretched, causing inefficient production. Similarly, beneficial option prices or other long-term business arrangements are too often broken in order to comply with the current-year bill-paying exercises on a pro-rata program basis rather than making the hard decisions to prioritize efforts.)

OPERATING TENETS FOR CROSS-FUNCTIONAL TEAMING

Moving to an environment where empowered cross-functional teams, involving customers, suppliers, members of the requirements, budget, legal, and acquisition communities, and industry when appropriate, work together guiding an acquisition through its lifecycle requires the adoption of the following key operating principles:

- Acquisition is not a function, but an end-to-end process that exists primarily to satisfy customer requirements. Together, functional specialists from the requirements, budget, legal, and acquisition communities will usher customer requirements through this process.

- Ensuring customer satisfaction requires end-to-end ownership by a designated customer relationship manager. This individual has authority to achieve program objectives and accountability for results and is affiliated with the project from start to finish.

- High-quality, responsive decisions and the elimination of rework and waste result from effective prior planning that involves all functions, customers, and suppliers. Issues are surfaced and resolved before they become embarrassing headlines. Potential risks, trigger points, and contingent actions are identified early and continually reviewed during the process.

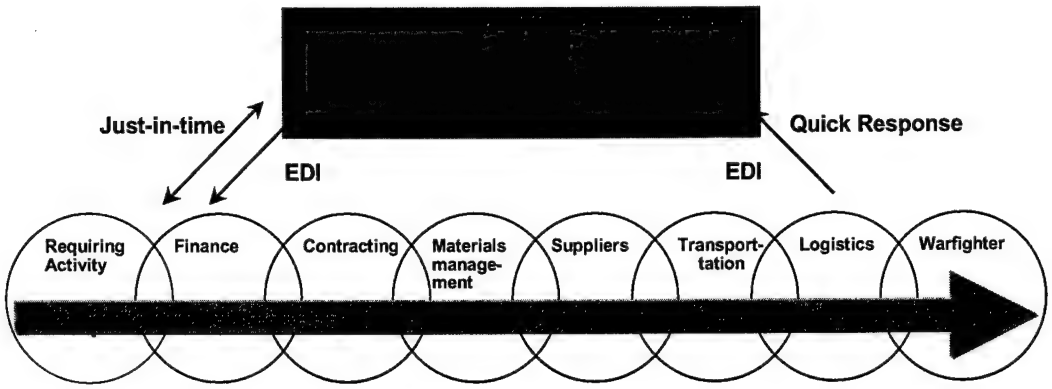
- An efficient end-to-end acquisition process requires support by product or service market specialists who identify and select sources and assist suppliers in delivering the best value possible.

- Team development of high-quality, win-win business relationships with industry is essential to continuously improve processes and reduce costs.

- An incentive and rewards system for both civilian and military personnel that supports and encourages acquisition innovation, goal achievement, and leadership is necessary to ensure rapid and meaningful change.

Cross-functional, government–industry teaming across the enterprise, where multidisciplinary teams—involving customers, suppliers, and members of the requirements, budget, legal, and acquisition communities—work together to guide an acquisition through its lifecycle, is illustrated in Figure 3-3.

Figure 3-3. Cross-Functional Team Acquisition Approach



EDI = Electronic Data Interchange

UNIQUE ROLES WITHIN TEAM ACQUISITION

The Defense members of Team Acquisition come from diverse functional specialties across the enterprise. Each will bring unique qualifications, hold distinct responsibilities, and offer varied contributions to Team Acquisition. This section identifies the five generic roles, and their affiliated responsibilities, that comprise Team Acquisition. Three of these roles—those of the customer relationship manager, the product or service market specialists, and the functional specialists—comprise the core team. The other two roles—those of the staff specialists and the senior leaders—function as resources or catalysts to the core team. To assume any of these roles, no job title changes need occur. Rather, embracing these roles requires the adoption of a new mindset. Eventually, the enterprise teaming concept (which is depicted here as Team Acquisition) is likely to evolve such that organizational structures are adjusted to support and staff such teams on a life-cycle basis. Similarly, performance appraisals at all levels are likely to evolve to measure and reward personnel consistent with enterprise teaming.

Although a single professional may serve in more than one of these five roles, the role-specific capabilities described in the sections below will help to create the competence level necessary to support a successful Team Acquisition. To prepare for the duties of any particular role, electronic performance support systems, which are discussed in Chapter 5, can be used to disseminate training needed for the Team Acquisition roles set forth here.

Customer Relationship Manager Role

When acting in the customer relationship manager role, a professional will assume the end-to-end responsibility for the project as well as the relationships within it. Those assuming this role must have the ability and desire to manage the purchasing and supply chain from end to end and to recognize and manage all customers (e.g., warfighter, private industry, Congress). In order to fulfill such

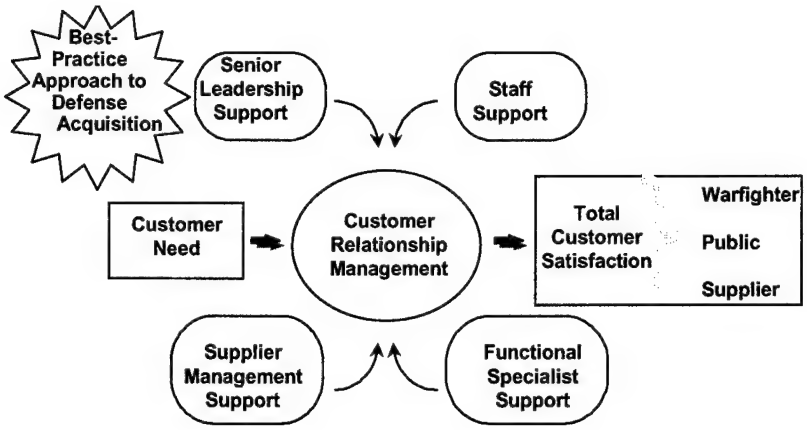
end-to-end responsibility, the person in the customer relationship manager role should be affiliated with the project from start to finish, not rotated out of the job (whether by promotion, waiver, or otherwise). The key qualifications of the customer relationship manager role are:

- The ability to pull together and lead teams—both standing and ad-hoc—as well as participate as a member of a team,
- A knowledge of the entire acquisition process and all functional specialties,
- The ability to negotiate win/win outcomes that balance the interests of all stakeholders,
- General management-level business and leadership skills,
- Complex project management skills,
- A comprehensive understanding of the supply chain from end to end, and
- Account management skills.[2]

As with all of the key roles discussed in this chapter, the role of customer relationship manager will make a critical contribution to Team Acquisition. In the customer relationship manager role, a professional must define realistic, cost-efficient requirements and ensure that these requirements reflect all views. Figure 3-4 illustrates the role of customer relationship manager as the focal point for balancing stakeholder interests. This individual must receive dedicated support to improve the quality and timeliness of acquisition decisions. The team roles, responsibilities, and rewards are all tied to a scorecard, which is discussed in Chapter 4.

[2] According to: Field, Tom. "The Missing Piece." *CIO Magazine* 1 December 1996 http://www.cio.com/archive/120196_consult_content.html, "account managers" are people-focused and strategic-thinking, and they anticipate (not just react to) business change. They are responsible not just for delivering a product or service but also for partnering with customers and suppliers to ensure that the deliverable adds value to identified business needs.

Figure 3-4. Cross-Functional Team Approach Led by a Professional in a Customer Relationship Manager Role



Product or Service Market Specialist Role

To serve successfully in the role of product or service market specialist, a professional will be an acquisition workforce member with a range of experience levels, depending on the area of focus (e.g., major systems specialists versus product specialists). These market specialists will maintain expertise in specific areas of technology or services, assist in matching potential suppliers with Defense needs, and assist suppliers in delivering the best possible value. The individuals tapped for this role must have the ability and desire to research, negotiate, and foster positive supplier relationships while obtaining the best value for the dollar. The key qualifications of the product or service market specialist role are the following:

- An analytical orientation that is supportive of market research, target pricing, and cost studies;[3]
- An ability to manage interactions between customer relationship managers and suppliers;

[3] "Harnessing the Power of Your Suppliers," *The McKinsey Quarterly* 3 (1993): 63–78, indicates that many companies today have changed how they work with suppliers in new product design. They now select them before drawing a single line on a plan. Suppliers are typically chosen by a cross-functional team from engineering, manufacturing, purchasing, and quality control. Responsible for the design and development of the new product, the team discusses it assembly by assembly and piece by piece and chooses suppliers on the basis of past price, quality, and delivery performance. The team ensures that each component has a single internal or external supplier that will be used for the life of the part during both development and production. As well as selecting suppliers, the team sets *target prices* for each component, drawing on its members' previous experience with similar parts. Using target prices ensures that a company will be able to produce a product with features and functions that customers want, at a price that is acceptable and competitive in the market. The team then meets the selected suppliers to discuss specifications and costs.

- A vision of their role as builders of resource pools rather than as controllers;
- An understanding of the rules and regulations that govern resource allocation and fund commitment;
- Negotiation and price analysis skills; and
- Technical expertise and current knowledge in the relevant product/service area.

When fulfilling the product or service market specialist role, a professional's critical contribution to the vision will be encouraging the "best of the best" to do business with the government and maintaining supplier relationships without losing a bottom-line outlook.

Functional Specialist Role

The functional specialist role will be filled by the existing functionally oriented professionals, such as representatives from the contracting, auditing, and comptroller communities, who have the ability and desire to be advisors and expediters to those in the roles of customer relationship manager and product or service market specialist. In a functional specialist role, a professional will serve as team advisor for a given functional area. The key qualifications of the functional specialist role are the following:

- A current and thorough understanding of functional, technical, and public policy requirements for a given specialized area;
- An ability to apply functional expertise in terms of the customer's need;
- An ability to maintain positive customer relationships while safeguarding the public trust;
- Expertise in conducting business case and risk analyses that identify functional go/no-go limitations;
- Knowledge of standard commercial practices in a specific functional area;
- Skill in translating functional technical expertise into team solutions;
- An ability to fashion a functional plan, for use outside the team, that furthers and supports the team solution; and

- An ability to apply "value chain analysis" techniques to the functional specialty.[4]

The critical contribution of those in the functional specialist role will be their fostering of an environment where the norm is finding a way to make things happen while staying within the confines of the law.

Staff Specialist Role

The staff specialist role will be filled by the existing policy managers and support staff with the ability and desire to become change facilitators. The key qualifications of the staff specialist role are the following:

- Skills in gathering and organizing best practices into models as well as developing simple-to-use systems for disseminating best practices;
- An ability to facilitate change (such as supporting the action acceleration workshops and rapid improvement teams discussed in Chapter 4);
- An ability to coach senior leaders on their role as change accelerators;
- Skills in analyzing, evaluating, and drawing conclusions from data;
- Good oral and written communication skills;
- Enthusiasm for working as a change agent; and
- A willingness to support lower-level members of the team and help them look for alternative solutions if barriers exist.

As their critical contribution to the team, those in the role of staff specialist will build the tools that will accelerate the process of change. In addition, staff specialists will continue to perform other staff functions (e.g., collecting and reporting acquisition data, developing necessary policies, providing expert advice to senior leaders).

[4] "Value chain" is sometimes used synonymously with "supply chain." According to: Douglas, Evan J. *Managerial Economics: Analysis and Strategy*. 3rd ed. New Jersey: Prentice-Hall, Inc., 1987, a "value chain" is the series of activities within a firm that serve to create value for the customer. Each link in this chain, from the technical excellence of the design to the courtesy of the people involve in after-sales service, must be nurtured, since weak links in the value chain operate to negate competitive advantage.

Senior Leader Role

Defense executives who have the ability and willingness to own the new vision and champion its success will assume the role of senior leaders. The key characteristics of the senior leader role are the following:

- Skills in communicating the vision in informal work sessions;
- A willingness to support any given Defense organization against unrealistic customer demands or unwarranted external influences;
- An ability to get out in front of strategic issues and lead the way (for example, by advocating industry partnerships);
- A willingness to delegate and empower others;
- An ability to be a coach in addition to a supervisory role;
- An ability to be a successful change agent and remove barriers; and
- An ability to set boundaries and remain within them.

The senior leader role will make a number of critical contributions to the vision. Specifically, those in this role will focus the teams, manage boundaries, manage constituents' expectations, and delegate authority. In addition, senior leaders will continue to perform any necessary oversight responsibilities, while focusing on empowering their employees.

CORE REQUIREMENTS FOR TEAM ACQUISITION

The new Team Acquisition roles discussed above are not mutually exclusive. That is, a degree of crossover among the roles will mean that all members of the team will share some core competencies. However, each individual, as well as each role, will have enhanced functional knowledge and skills that will set them apart from the others and provide their unique value contribution to a given Defense function, such as acquisition.

Core Behaviors

Team Acquisition will share core behaviors that provide a basis for performance evaluation and reward as well as developmental feedback. The most essential of these core behaviors are the following:

- Making optimal decisions based on the interests of all stakeholders;
- Understanding and exercising good business judgment within the confines of the law (as opposed to narrowly administering rules);

- Maintaining a continuous focus on the customer and the customer's needs and requirements;
- Delegating decision-making to the lowest level capable of getting the job done;
- Recognizing others for engaging in team behaviors;
- Identifying and promoting the use of best practices rather than accepting the status quo;
- Demonstrating fairness in dealing with customers and suppliers;
- Being willing to accept prudent risks to achieve team results;
- Sharing ideas, concerns, objections, and recommendations in the team setting without fear of retribution;
- Maintaining functional expertise to enhance team results;
- Building trust within the team by supporting positions with facts and logic;
- Treating mistakes as learning experiences; and
- Pursuing continuous learning and professional development.

Core Skills and Knowledge

In order to exercise these behaviors, members of the team must share a toolbox of core skills and knowledge. This toolbox will serve as a basic resource for conducting Defense business in a manner that is critical to executing the study group's vision. The concept of a shared knowledge base leads to a general learning track for implementing improvements; contributes to the creation of universal models for getting the work done; and adds structure, logic, and cohesion to best practices. The following core skill and knowledge requirements are necessary:

- A general knowledge of the DoD acquisition process;
- An understanding of the legal, regulatory, and political framework in which government business is conducted;
- An understanding of the principles of supply chain management;
- A basic understanding of the commercial business environment and the importance of investment in research and development;

- An understanding of market research principles and strategies for sourcing suppliers;
- A grasp of the fundamentals of project management: risk, cost, quality, and timeliness;
- The ability to conduct cost/benefit and tradeoff analyses;
- An understanding of how to work in high-performance teams;
- An understanding of how to use the business results scorecard to measure performance (described in Chapter 4);
- Competency in change management, including an understanding of complexity management, and risk analysis;
- A knowledge of the fundamentals of defining requirements; and
- Competency at working with information and abstract concepts to create new information and knowledge (i.e., a knowledge worker).

CORE CURRICULUM

Because the success of Team Acquisition rests on five different roles working together in a cross-functional environment, the DoD needs a common knowledge base, offered through its core curriculum, to promote the aims of enterprise teaming. A core curriculum will provide a base level of education, instill new values, and promote positive change.

The realistic sequence for core acquisition-related skill and knowledge training discussed earlier in this chapter is as follows:

1. DoD requirements and acquisition process (program management flavor),
2. Legal/regulatory framework overview,
3. Commercial business environment and supply chain management, and
4. Market research and defining requirements.

At the next level, the following courses, which are listed in no particular order, should be attended:

- Project management fundamentals,
- Cost/benefit analysis,
- Performance measurement,

- Balanced scorecard, and
- High-performance team participation.

These courses should be attended by everyone in the functional areas, not simply acquisition or contracting personnel; or, at the very least, an overview course *must* be attended by everyone in the functional areas. In order to build the team mentality into all of the education and training that takes place in support of enterprise teaming, learners should attend the training sessions as a team and participate in the training wearing the hats of different team members. An electronic performance support system, which is discussed in Chapter 5, would be a useful delivery method for this team-based education and training.

SUMMARY

The Team Acquisition approach will work to illustrate the importance of teaming across the enterprise. To begin, Team Acquisition must have an environment that allows the exercise of good business judgment, provides necessary authority, and fosters cross-functional teaming. The team must share core behaviors, skills, and knowledge, which will be provided and/or enhanced through a learning organization's curriculum. However, at this stage, Team Acquisition is merely a concept. Like many other suggested beneficial reforms, it cannot help the Department if it is not quickly implemented. To achieve rapid reform—for Team Acquisition and the Revolution in Business Affairs—DoD should adopt the enterprise change acceleration model discussed in Chapter 4.

Chapter 4
Accelerating Change: The Enterprise Change Model

OVERVIEW

The DoD needs committed and skilled leaders at all levels, as well as tools to accelerate change, in order to win at any reform effort. Education and training are key tools for accelerating change. However, education and training alone are insufficient for accelerating the Revolution in Business Affairs. Instead, senior leaders in the DoD must lead an aggressive campaign using an enterprise change acceleration model to hasten reform. The Team Acquisition concept set forth in Chapter 3 is one recommended reform that would benefit from having a robust change acceleration model in place. However, many other reform initiatives—including those suggested by other 912(c) study groups—would benefit from being included in the change acceleration model as well.

As described in Chapter 3, a functional silo organization still exists within the DoD acquisition process. Strides to correct this have been made (e.g., the program management discipline and integrated product teams). Yet, much remains to be done to increase the effectiveness of teaming across diverse DoD communities to foster a best-practice-based learning environment to support the warfighter. The Team Acquisition concept set forth in Chapter 3 is one solution to this problem. However, it also needs a means of being rapidly implemented.

Just as these functional silos stifle the ability to conduct the best acquisitions, they also negatively impact reform efforts. In addition to Acquisition Reform, DoD has, in recent years, undertaken many initiatives to reform and improve its business processes. These include the Defense Reform, Logistics Reform, and Financial Reform initiatives. Too often, reform initiatives—even an extremely successful one such as the introduction of the Government Purchase Card—are viewed as disparate—rather than concerted—efforts to effect a strategic, organization-wide transformation. While streamlining processes and procedures and providing efficiency improvements, these reforms have failed to provide a coherent, compelling, DoD-wide vision of what change should entail and what tools, training, and resources are needed to succeed. Just as the Team Acquisition concept needs implementation assistance, so too do other suggested reforms.

The most successful commercial enterprises must change rapidly to remain efficient. One area where rapid change has occurred is within their supply management systems. Commercial enterprises have quickly changed to fully include their suppliers in making the smart, team-based decisions needed when faced with a much-reduced supply base. This change has improved performance in terms of

quality, delivery, and service, while significantly reducing costs. Much of the existing Defense supply base resists the continued application of antiquated, rule-driven DoD acquisition processes. The current and expected Defense budget reductions make a better and more cost effective acquisition process imperative. Team Acquisition will do just that. However, like all other meritorious proposals, it can work only if it is implemented in an expeditious manner.

In this chapter, we describe the enterprise change acceleration model, scorecards, and a timeline for accomplishing change acceleration. The change acceleration model encompasses the processes and action steps that the Department, in conjunction with the military components, will use to accelerate the changes envisioned in this report. A fundamental precept of the enterprise change acceleration model is that goals must be identified, and the accomplishment of those goals must be measured through a scorecard. The logic behind this practice goes to the heart of any reform effort: things that can be measured can be improved. A second important step in identifying and managing goals involves developing a timeline for accomplishing the goals. To this end, the Commercial Business Environment Study Group has established an eighteen-month timeline for implementing the Acquisition and Defense Reform acceleration campaign.

The implementation of Team Acquisition stands to benefit from a proven tool for accelerating change, as would the recommendations for reforms from the other 912(c) study groups. An enterprise change acceleration model will benefit not just Team Acquisition, but the entire Revolution in Business Affairs.

ENTERPRISE CHANGE MODEL

An enterprise change model is the necessary tool for accelerating reform. This approach has been used successfully in industry by enterprises such as Motorola, Telstra (Australia's telecommunications company), and General Electric, one of America's most profitable and frequently emulated corporations. Appendix C includes examples from these three organizations that illustrate how change acceleration works in corporations throughout the United States. The DoD will benefit by adopting a similar strategy to accelerate the organizational behavior changes that its own initiatives require.

Objectives

The recommended enterprise change acceleration model will help DoD:

- Create commitment and direct energy toward accelerating reform;
- Adopt a common vision (e.g., Team Acquisition);
- Build the business case for making the envisioned improvements;
- Establish a new leadership behavior model;

- Enroll sponsors;
- Select projects for accelerated reform through focused application of the enterprise change acceleration model; and
- Integrate industry/stakeholders/Congress/requirements community as participants, speakers, facilitators, and consultants.

Key Components of the Enterprise Change Model

The change acceleration model that will be used by the DoD to effect the changes described above contains the following key components:

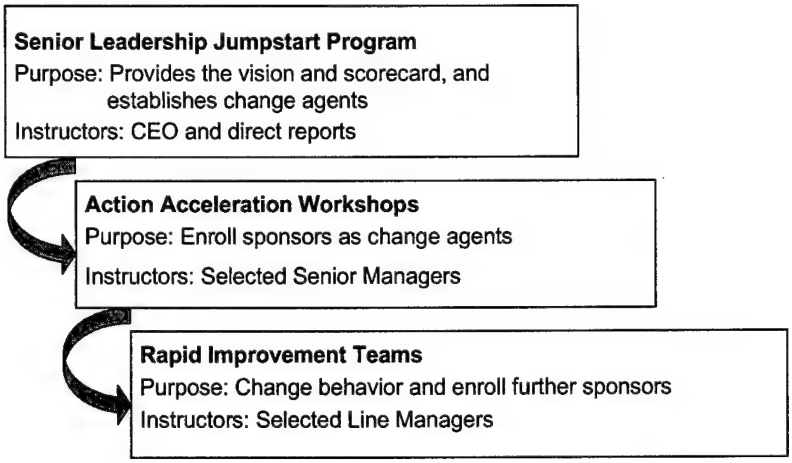
- Senior leader jumpstart program,
- Action acceleration workshops,
- Rapid improvement teams,
- Accelerated reform scorecard,
- Mission support office,
- Coaches,
- Education and training, and
- Knowledge management infrastructure.

Each of these components is discussed in the sections and chapters that follow, with the first three—which are the core components of the model—briefly sketched here as a means of highlighting the model's applicability to the acceleration of reform.

To accelerate reform, the DoD must engage the military components in an organization-wide call for action—a declaration that important changes are coming. First, enterprise goals will be identified and managed against an accelerated reform scorecard. Second, senior leaders will establish objectives that are meant to encourage leadership's ownership of accelerated reform, to facilitate the changes required to meet reform goals, and to coach and direct their subordinates. The senior leader jumpstart program will accomplish these objectives. From there, as highlighted in Figure 4-1, a roll-down process begins, as the next-level managers attend similar training at team-based action acceleration workshops. These are designed to prepare and mobilize teams that will attack target reform opportunities. Next, these teams—termed "rapid improvement teams" for the purposes of this report—will apply what they have learned in the workshops to get results. In order for the enterprise change model to succeed, the training and support that is

provided to the large number of individuals and teams involved must be timely, thorough, coordinated, and of a high quality.

Figure 4–1. Core Components of the Enterprise Change Acceleration Model



These initial elements in the enterprise change acceleration model are explored in further detail below.

Senior Leader Jumpstart Program

The first element in the change acceleration model is the senior leader jumpstart program. Reform initiatives must be accelerated, and this will require senior leaderships' direct involvement. Senior leaders need to set the targets, know the plan of attack, visibly lead the attack, and enlist others in implementing the plan. A jumpstart program accomplishes these objectives. The purpose of this program is to mobilize senior leaders to drive reform faster in their organization.

The proposed senior leadership jumpstart program requires the mandatory participation of the top 200 DoD executives to focus enterprise cultural change. Included in this essential group are program executive officers, heads of contracting activities, force commanders, Office of Secretary of Defense Principal staff assistants, and military department leaders.

These executives will participate in facilitated, one-day sessions for groups of 20, (ten sessions) with the Office of the Secretary of Defense ensuring attendance at each session. The sessions will culminate with the development of action plans and scorecards to implement cultural change via enterprise-wide rapid improvement teams.

The senior leader jumpstart program will cover the following topics:

- The Revolution in Business Affairs: What and Why
- Scorecard for Measuring Success
  - Current Levels of DoD Performance
- Enterprise Change Model
- Case Studies
- Executing the Plan: Next Steps
  - Our Role as Leaders
  - DoD Opportunities

The faculty and instructors for the senior leader jumpstart program could include:

- Deputy Secretary of Defense;
- Defense Management Council (DMC) members; and
- Industry leaders who have achieved major changes in short cycle time (e.g., the President of Chrysler or the Vice President of Worldwide Supply Management at Deere & Co.).

Action Acceleration Workshops

The second element of the enterprise change acceleration model is action acceleration workshops. Senior leaders need a mechanism to enlist others in implementing the plan to accelerate reform. Hence, the DoD needs a mechanism to ensure that real action occurs and reform is made across the board. Action acceleration workshops provide the needed mechanism and model. The purpose of these workshops is to accelerate reform throughout the DoD. Participants should include senior managers and their teams that have been selected to work on reform targets.

The workshop curriculum should include the following content:

- The Revolution in Business Affairs: What and Why
- Scorecard for Measuring Success
- Change Acceleration Model Simulation
- Executing the Plan: Next Steps

- Determining Reform Targets and How to Show Measurable Results.
- Working with Team Leader and Coach to Establish Plan of Action

The workshop faculty and instructors should include the following:

- DMC Coordinating Group members,
- Senior leaders (from the senior leader jumpstart program),
- An industry representative who has been successful using the acceleration model,
- Change management practitioners who have been successful using the acceleration model, and
- Team coaches (discussed in Chapter 5).

Rapid Improvement Teams

After the workshops, the roll-down process continues through the third tier of the enterprise change model: rapid improvement teams. Chartered by senior leaders or their sponsors, these teams will attend their own workshops and leave equipped with a target, model, and accountability. In 60 days, they will report on completion (or completion of milestones). The purpose of these teams is to get "home runs" for reform initiatives throughout DoD.

Target participants in this stage are cross-functional and cross-level teams who need to improve their performance in meeting their customers' needs. These participants will engage in the following actions:

- The team leader focuses the team on its target,
- Each team attacks its reform target using the tools provided in the workshop,
- Coaches are available to assist with the process of implementing the change,
- Subject matter experts are available to assist in weighing content decisions, and
- Each team reports its outcomes to its manager after 60 days.

PERFORMANCE SCORECARDS

In addition to its enterprise performance scorecard, DoD should use an accelerated reform scorecard to measure the success of the change acceleration model in speeding reform efforts. In consonance with this scorecard-based measurement effort, individual initiatives and/or programs should establish their own scorecards that roll up and support the top-level scorecard. For example, the study group developed two scorecards to assess the progress of Team Acquisition; one to measure the progress of the Team Acquisition process, and the other to assess team behavior.

Top Level Scorecard

The top-level accelerated reform scorecard should measure the effectiveness of the change acceleration model in the following areas:

- Attainment of DoD Enterprise outcomes,
- Customer/supplier/employee satisfaction,
- Achievement of reform targets, and
- The effectiveness of the enterprise change acceleration model in expediting the achievement of reform targets.

ATTAINMENT OF DEPARTMENT OF DEFENSE OUTCOMES

The accelerated reform scorecard should measure whether the following DoD enterprise outcomes, which are consistent with the Government Performance and Results Act performance plan for Fiscal Year 2000, are attained:[1]

- Infrastructure spending is reduced from 46 percent to 43 percent, based on reduced response times, ability to track items in the supply channel, reduced inventory, and elimination of excess real property;
- A downward trend is documented in the budget allocated to infrastructure compared to combat forces;
- Logistic response time is decreased to 18 days;
- Total asset visibility level of 90 percent is achieved due to enhanced interface among the Services and Defense agencies and monitoring through quarterly status reports;

[1] Cohen, William S. "Appendix J: Government Performance and Results Act Performance Plan for FY 2000." *Annual Report to the President and the Congress,* 1999 http://www.dtic.mil/execsec/adr1999/apdx_j.html.

- National Defense Stockpile Inventory is reduced by disposal of $2.2 billion (in Fiscal Year 1996 dollars);
- Supply inventory is reduced to $56 billion (in Fiscal Year 1995 dollars);
- Major Defense Acquisition Program (MDAP) Cost Growth is less than 1.0 percent annually;
- Cycle time for delivering new MDAPs to the field is reduced by 25 percent to less than 99 months (as opposed to the Fiscal Year 1996 baseline of 132 months);
- 90 percent of micro-purchases are made with the purchase card; and
- Electronic contracting and payment practices are used in 90 percent of DoD transactions.

CUSTOMER/SUPPLIER/EMPLOYEE SATISFACTION

The accelerated reform scorecard should measure whether the following groups are satisfied with the DoD by surveying them on the areas indicated:

- Customers:
  - Whether their needs are met,
  - The ease of the process they undergo to meet their need, and
  - The satisfaction level with the process they undergo to meet their need.
- Suppliers (note that another measure of supplier satisfaction could be the number of commercial firms or commercial segments that were previously unavailable to DoD and now respond to DoD's requests):
  - Ease of doing business,
  - Professionalism, and
  - Whether the DoD is a "customer of choice" for doing repeat business.
- Employees:
  - Professionalism,
  - Commerciality, and
  - Whether the DoD is an "employer of choice."

ACHIEVEMENT OF REFORM TARGETS

The accelerated reform scorecard should measure whether reform targets are achieved, as indicated by:

- Percentage of reforms targets completed,
- Degree of success achieved in ameliorating the issue from which the reform stemmed, and
- Cycle time for completion.

EFFECTIVENESS OF CHANGE ACCELERATION MODEL IN EXPEDITING REFORM

The accelerated reform scorecard should measure whether the means for achieving reform (i.e., the change acceleration model) has served its purpose: expediting the achievement of reform targets. For Team Acquisition, the effectiveness of the change acceleration model will be judged by whether the following exist:

- Cross-functional team representation,
- Authority equal to responsibility, and
- Exercise of good business judgment while preserving the public trust.
- Incentives for change agents established.

Scorecards for Team Acquisition

Consistent with the overarching goals identified above, the study group identified a set of goals and measures to use as a basis for developing two scorecards to measure the progress of Team Acquisition. An external scorecard, illustrated in Table 4-1, measures external customer satisfaction with Team Acquisition results. The second scorecard, identified in Table 4-2, measures the internal dynamics of the teaming process embodied by Team Acquisition.

EXTERNAL SCORECARD FOR TEAM ACQUISITION

As presented in Table 4-1, the distinct goals of the warfighter customer, the general public, and Defense suppliers—the key stakeholders for any acquisition program—are linked to specific external performance indicators.

Table 4-1. Team Acquisition External Scorecard

	Stakeholders		
	Warfighter Customer	General Public	Suppliers
Goal	Customer satisfaction	Trust	Ease of doing business
External Performance Indicators	• Time to field • Performance in use • Value for funds allocated	• Value for dollars spent • Fairness of process • Performance as promised	• Desire to do business with the government • Return on investment • Willingness to partner on innovations

The goal for the warfighter is customer satisfaction. The key indicators that measure satisfaction with an acquisition are time to field, quality performance, and best value for the dollar. For the general public, the goal is trust. The public wants to see best value for dollars spent, an acquisition process that is fair, and products that perform as promised. Suppliers are most interested in doing business with the government as easily and efficiently as possible. The key indicators that measure whether this goal is being met are suppliers' desire to do business with the government, a greater return on investment, and industry's willingness to partner with the government on innovations.

INTERNAL SCORECARD FOR TEAM ACQUISITION

Just as the organization must meet the goals of the stakeholders, the team members in the various roles must meet shared as well as individual goals for any given acquisition. As highlighted in Table 4-2, the shared indicators of successful team performance are customer satisfaction, cost, fairness, and ease of doing business. Time to field is the performance indicator for the customer relationship manager role. For those in the product or service market specialist role, who must manage supplier relationships to foster increased competitiveness, their performance indicator is current market understanding in order to match potential suppliers with Defense needs, which should result in increasing the competitiveness of the supply chain. A lack of rework, a reduction in complaints or protests, and a reduction in cycle time all translate to the performance indicators for the functional specialist role. For those in the staff specialist role, who are ultimately responsible for enabling change (by coaching senior leaders on their role as change accelerators), the application of best practices indicates their success. Finally, as the coaches and advocates for the vision, those in the senior leader role can measure their success in terms of increased communication to, motivation of and support to the workforce.

Table 4-2. Team Acquisition Internal Scorecard

	Performance Indicators	
	Role Specific	Shared
Customer Relationship Manager Role Product or Service Market Specialist Role Functional Specialist Role Staff Specialist Role Senior Leader Role	♦ Time to field ♦ Competitiveness of supply chain ♦ Speed/protests ♦ Application rate of best practices ♦ Communication to, motivation of, and support to workforce	♦ Customer satisfaction ♦ Cost ♦ Fairness ♦ Ease of doing business

Rapid Improvement Team Scorecards: An Acquisition Program Example

In addition to, and in consonance with, the overall accelerated reform scorecard, rapid improvement teams are expected to establish their own metrics. These lower-level metrics would measure the successful acceleration of reform on three levels: against the higher level scorecard, systems specific metrics, and activity level metrics. The higher level scorecard measures performance success by identifying and evaluating specific rapid improvement team outcomes against the overall reform scorecard. For example, dollars saved and a reduction in cycle time are key performance indicators and can be tied to goals on the stakeholder and internal scorecards discussed above. At the systems specific level, improvements are reflected as restructured roles and responsibilities, new incentive programs, or new database programs. At the activity level, changes are reflected as large-scale accomplishments toward the vision. For example, teams launched and programs designed reflect movement from the old culture to the new. Using the example of a specific acquisition program, the following sections illustrate what a rapid improvement team's metrics might look like.

SCORECARD

On the scorecard level, the following performance metrics could be used to evaluate the efficacy of the change acceleration model in accelerating improvements on an acquisition program:

- Reduced procurement cycle time;
- Increased nontraditional supplier participation; and

- Transition National Partnership for Reinventing Government High Impact Agency Year 2000 goals[2] across the acquisition enterprise:
  - 25 percent Major Defense Acquisition Program (MDAP) cycle time reduction and 1 percent MDAP annual cost growth.
  - 80 percent career (civilian and military) buy-in through specific behavioral performance appraisals.
  - 95 percent community satisfaction.

SYSTEMS

On the systems level, the following performance indicators could be used to evaluate the efficacy of the change acceleration model in accelerating improvements on an acquisition program:

- The implementation of a teaming benchmarking database;
- The development of an enterprise-wide requirements analysis process (i.e., a way to classify and collect requirements);
- The development of a model project process architecture;
- Organizational reviews of structure, mission, function, position descriptions, accountability, and reward system that promotes enterprise teaming;
- Restructuring of financial compensation to reward the enterprise teaming process;
- The establishment of DoD/industry sector consortiums;
- The integration of staff specialists within the Defense Acquisition University;
- The elevation of operational requirements documents and acquisition program benchlines to performance-contract status; (The operational requirements document married with the acquisition program baseline should be a binding contract for the entire enterprise.)
- The implementation and utilization of responsibility; and
- The initiation of DoD training based on a corporate university model (e.g., the designation of an institution, benchmark, and design). (See Chapter 6 for more information on a corporate university model.)

[2] Cohen, William S. "Appendix J: Government Performance and Results Act Performance Plan for FY 2000." *Annual Report to the President and the Congress,* 1999 http://www.dtic.mil/execsec/adr1999/apdx_j.html.

ACTIVITY

On the activity level, the following performance indicators could be used to evaluate the efficacy of the change acceleration model in accelerating improvements on an acquisition program:

- The initiation of 8 pilot demonstrations (including complete facilities, major programs, and Defense Logistics Agency);
- The provision of training in teaming, project, and change management;
- A transition of 20 percent of activities to the enterprise teaming concept;
- A survey of the baseline community climate;
- The development of metrics to measure customer and supplier satisfaction;
- The initiation of 50 rapid improvement projects and the completion of 5 pilot projects across the range of acquisitions, following the Team Acquisition model;
- The development and deployment of a training curriculum and skill sets;
- The training and deployment of change agents; and
- An increase in the number of products, technologies, and services that are purchased from commercial segments that previously have avoided doing business with DoD.

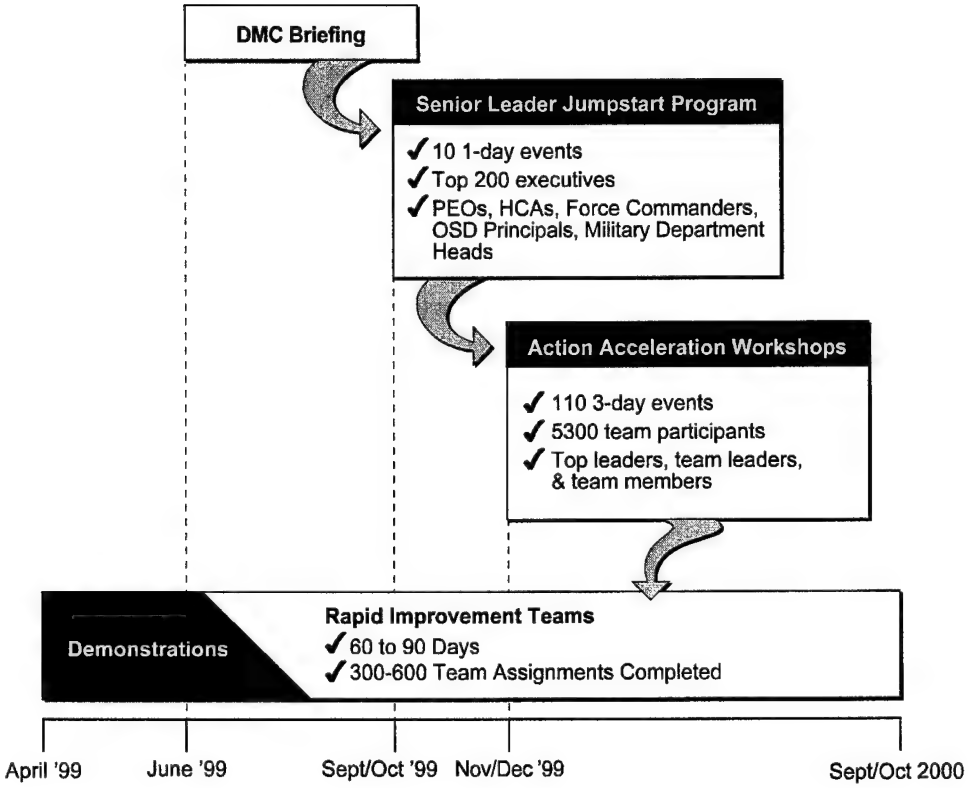
EIGHTEEN-MONTH REFORM ACCELERATION CAMPAIGN

As illustrated in Figure 4-2, starting in April of 1999, the campaign to accelerate reform initiatives using the change acceleration model commences. It will continue through October of 2000. Pilot demonstration projects, which are discussed in the next section, will begin in April and run through mid-summer. The first event could be a kickoff briefing to the Defense Management Council on the enterprise change acceleration model to accelerate reform.

The senior leader jumpstart program would commence in September/October and run for approximately one year, comprising ten, 1-day events attended by the top 200 DoD executives. In November/December, the first action acceleration workshops get underway. These will be 3-day sessions attended by approximately 5300 participants, and they will be conducted until the end of the year. The rapid improvement teams will flow out of the action acceleration workshops. The first teams, aside from those formed to address the pilot demonstration projects, will

begin their work in June. The teams established in support of the pilot projects will be staffed by those already involved in the initiatives, which are described below.

Figure 4-2. Implementation Plan: Eighteen-Month Change Acceleration Campaign



HCA = Head of Contracting Activity; PEO = Program Executive Officer; OSD = Office of the Secretary of Defense

Pilot Projects for Accelerating Reform

The change acceleration model discussed above should first be applied to select DoD programs. As this will be the DoD's first use of the change acceleration model, the Department should start off with more manageable projects that will allow DoD to test and refine the model for use on more complex endeavors. These designated initial programs will form rapid improvement teams that use the change acceleration model to build on their existing reform efforts and improve their success rate. The outcome will be measured and these teams' successes, as well as their lessons learned, will serve to validate the model for application to

more complex reform initiatives. To this end, the Commercial Business Environment Study Group has launched a rapid improvement team initiative to accelerate the Commercial Packaging Program.

PILOT DEMONSTRATION RAPID IMPROVEMENT TEAM: COMMERCIAL PACKAGING INITIATIVE[3]

The DoD commercial packaging objective is to eliminate military-unique packaging processes and routinely apply commercial practices, even for items entering the military distribution system. The goal is to leverage commercial capabilities and broaden the availability of commercial products that meet Defense needs. The DoD commercial packaging initiative is designed to reconcile military specifications with best commercial practices in packaging and quality assurance.

While progress has been made in this area, the effort needed to be accelerated through a rapid improvement team. To this end, the Deputy Under Secretary of Defense (Acquisition Reform) and the Deputy Under Secretary of Defense (Logistics) are conducting a three-year pilot program with selected contractors—General Electric (GE) and Allied Signal (AS)—to:

- Allow GE/AS to implement a commercial packaging process and test its performance within the military distribution system;
- Expand the application of commercial packaging for items intended to enter the military distribution system;
- Develop lessons learned to improve the integration of military/commercial packaging requirements; and
- Develop, monitor, and review government and industry benefits, risks, and cost savings.

The application of the enterprise change acceleration model to the commercial packaging initiative will enhance DoD's ability to meet these goals. It also will establish performance metrics to track packaging discrepancy reports and cost reductions achieved. The participants in this pilot program have already reported breakthroughs resulting from application of the change acceleration model. The first scheduled review of the program will occur in approximately twelve months, when preliminary performance data will be thoroughly analyzed.

[3] Much of the material in this section was drawn from: Department of Defense. "Overcoming Barriers in Requirements Definition Practices." *Barriers to the Use of Commercial Integrated Circuit Technology in Defense Systems* http://www.acq.osd.mil/es/dut/ic/sect3.htm.

Acceleration Plan Timeline for Implementing Team Acquisition on a Selected Program

To illustrate an acceleration plan timeline for DoD, the study group selected the example of a base/installation commander who is acquiring installation operations support. The following sketches a possible timeline for implementing Team Acquisition through DoD enterprise change acceleration model utilizing a rapid improvement team on a selected acquisition program. Implicit in this example is the understanding that the installation commander would be delegated the authority to make the necessary decisions, and his or her team would receive necessary training to foster the expected behaviors.

1. Month 1: The business proposition is presented to the installation commander: "As you know, teams have proven to be very effective in the commercial world; therefore, our senior leaders have revised our methods of operation so that you will want to form teams on your installation. This is the new way that DoD will do business. Our analysis indicates that those who try to hold to the old ways will not survive. To help you transition to this new environment, we are offering a way to make your acquisitions using a team approach with end-to-end management and any training needed. We are offering a better value—more for less, with reduced cycle time." This proposition is made in a positive manner rather than as a warning that could elicit a defensive response from the installation commander.

2. Next, the installation commander gathers his or her direct reports, and the plan is presented to them. This top team attends the trigger event, at which the following message is delivered to the participants: "We have a model that is better, faster, and cheaper." The participants are given the team structure, and the concept of different roles and different hats for different functions on a single team is explained. The team is encouraged to delegate responsibility and share the practices of the change acceleration model. The curriculum is, perhaps, presented at this point.

3. Month 3: Once the team understands the process and has been through the training, two rapid improvement teams are launched. One will address any process improvements that were identified as necessary during the training, and the other will focus on the acquisition project(s). (Note that, at any given installation, multiple projects or a mega-project could be selected.) The emphasis of this stage is on changing the way of doing business. The selected projects are merely a starting point—a way of validating the new way of doing business; a focus on projects alone is not sufficient for the widespread change recommended by the study group. Next, support for the teams is provided in the forms of coaching, facilitation, and additional training.

4. The final step is to evaluate team performance via feedback from the rapid improvement team.

These four are only the very basic milestones. For a simple, commodity-oriented project, this timeline might be as short as 90 days. However, for a complex project such as the next phase of the major program, the timeline could extend much longer.

SUMMARY

DoD should adopt the change acceleration model, which has been validated by commercial enterprises such as General Electric, Motorola, and Telstra, to accelerate the Revolution in Business Affairs. As evidenced by the many elements of the enterprise change acceleration model detailed above, the movement of the current Defense organization into an acceleration mode for reform. Reform requires a change in the way the existing population works and thinks. To judge whether the enterprise change acceleration model is effective in speeding reform, a scorecard should be kept.

An accelerated reform scorecard should be used to track the following areas: DoD outcomes, customer/supplier/employee satisfaction, reform targets achieved, and alignment between achieving targets and using the enterprise change acceleration model. In consonance with these top-level goals, rapid improvement teams would establish their own measures that roll up and support the master scorecard. These lower-level metrics can measure the successful acceleration of reform on three levels: scorecard, systems, and activity. Additionally, initiatives such as Team Acquisition might establish their own lower-level scorecards that support the top-level scorecard.

The change acceleration campaign should be implemented within eighteen months' time and should commence with manageable pilot projects. Projects such as the Commercial Packing Initiative serve as test processes on which rapid improvement teams will build future reform efforts.

Chapter 5
Managing Change: A Mission Support Office

OVERVIEW

While the enterprise change acceleration model described in Chapter 4 is essential, it will not make headway without a mission support office. Simply put, successful missions need adequate support. A mission support office, headed by a DoD senior leader and sponsored by the Office of the Secretary of Defense, should be established.

PURPOSES

The purposes of the mission support office, which involves sustaining the endeavors begun under the enterprise change acceleration model, include the following:

- To provide just-in-time support to each rapid improvement team leader to help ensure success and consistency with the vision;
- To create a forum for review of commercial business techniques or processes that the rapid improvement team leaders wish to implement but a higher headquarters has denied approval. The mission support office performs a facilitator function to ensure maximum opportunity for implementing innovative solutions;
- To capture the results across the DoD;
- To enable the reuse of ideas, methods, and outcomes;
- To accelerate the use of change agents across the DoD.
- To resolve team resource issues; and
- To escalate issues that need higher levels of support.

In order to fulfill its purposes, the mission support office should directly report to the office of the Secretary of Defense and should be led by a DoD senior leader and staffed by change management experts and facilitation experts. Since the current Defense environment indicates that the mission support office is likely to be nominally staffed, contracting out for necessary support is advisable.

SUSTAINING CHANGE

The mission support office will play an essential role in sustaining the initiatives that are begun under the enterprise change acceleration model. Three important aspects of this role include providing coaches, education and training, and a knowledge management infrastructure.

Coaches

The mission support office will provide coaches, as necessary, to team leaders participating in reform projects. These coaches will:

- Help to ensure the successful completion of the rapid improvement teams,
- "Unstick" teams that get stuck,
- Provide model coaching (as a leadership behavior), and
- Provide feedback from across the DoD regarding the effectiveness of the enterprise change acceleration model.

Education and Training in Defense Reform Skills and Knowledge

Another initiative that the mission support office will undertake to support the enterprise change acceleration model is the provision of education and training in reform skills and knowledge. Existing curricula need to be refreshed to include courses that teach the skills necessary for accelerating and institutionalizing reform. Similarly, existing curricula need to be reviewed to eliminate courses that are not aligned with the messages supporting reform.

Knowledge Management Infrastructure

Finally, the mission support office will uphold the enterprise change acceleration model through establishing a knowledge management infrastructure. The establishment of a knowledge management infrastructure acknowledges the fact that organizations can accelerate their business improvement when they equip themselves to transfer information. The infrastructure accelerates information exchange, reinforces the reuse of information, and creates an environment that enshrines war stories to reinforce new expectations and behavior.

The purposes of the knowledge management infrastructure are to:

- Build on the DoD's ability to capture, package, and reuse information and learnings from throughout the organization; and
- Reduce the cycle time of improving business practices to meet the customers' needs.

ROLE OF EDUCATION AND TRAINING IN SUSTAINING CHANGE

As is evidenced by the above, education and training play an important role in helping the mission support office sustain positive change. DoD has existing infrastructure—including two pilot programs initiated by the Commercial Business Environment Study Group—on which the mission support office can build. Beyond the existing sources, the mission support office should consider other delivery methods and providers that are available for fulfilling the education and training needs of the Department.

Pilot Programs

Education and training are so vital to the study group's vision of teaming and accelerated change that the group has undertaken two education and training pilot programs that mirror the vision. The first is an online course titled "Integrating Commercial Practices with Government Business Practices, Program I: Managing Suppliers." The second is a traditional classroom course titled "Competing in a New Business Environment: A Program for Defense Acquisition Executives." These courses are offered by two different providers—an association joint venture and a graduate business school. In addition to these two sources, a wide variety of potential DoD education and training partners exists. For more information on such sources, see Appendix D.

COMMERCIAL BUSINESS ENVIRONMENT PILOT PROGRAM

The DoD online course "Integrating Commercial Practices with Government Business Practices, Program I: Managing Suppliers" (http://www.ncma-napm.org) is part of a commercial business environment pilot program introduced in December 1998. It was developed in cooperation with the National Association of Purchasing Management (NAPM) and the National Contract Management Association (NCMA), who jointly funded its development. The material for this 24-continuing education credit course is at the undergraduate senior or graduate level, and the cost is $100 per student. A team approach to the course is encouraged, although individuals can also take the course. No examinations are conducted; instead, self-evaluation is offered. The Associations provide the administrative back-end for the course and can provide individual student tracking for agencies.

The NAPM–NCMA pilot program should play an important role in educating and training the Defense workforce. Senior leaders should encourage enrollment in this course in recognition of its value and also to stimulate other such self-funded endeavors. Among the valuable aspects of this particular course are its topic (supplier management, a key commercial practice in today's supply-chain-management world) and its developers (NAPM, representing commercial acquisitions, and NCMA, representing government acquisitions), which unite two important viewpoints into one course.

Commercial Business Environment Pilot Program

The Army and the Defense Acquisition University have partnered with the University of Virginia's Darden Graduate School of Business to develop a pilot commercial business environment course. This course is offered through Darden's executive education program and is titled "Competing in a New Business Environment: A Program for Defense Acquisition Executives." This customized pilot course was developed to address a perceived deficiency: government personnel's knowledge of what drives private-sector business decisions. The two-week pilot course was offered in February 1999 to approximately 40 students and in August 1999 to approximately 45 students drawn from middle management. This pilot program and others like it may serve to support DoD education and training efforts.

Delivery Methods

The sections below discuss two key delivery methods—online education and electronic performance support systems—with additional information on delivery methods set forth in Appendix E.

Online Education Offerings

Online education offerings began with a limited number of technology-based courses. By 1998, both the number and content of online courses had expanded tremendously. Hundreds of Web-based courses have been developed and are available.[1]

More than 1 million students are using these online universities, compared with 13 million attending traditional, brick-and-mortar schools. The number of students taking courses online is expected to triple by the year 2000.

The federal government has responded to this development with its own online educational offerings. For example, the Defense Acquisition University has developed and offers an online course, CON 237, Simplified Acquisition Procedures. Further, DoD offers the NAPM–NCMA online course discussed above,

[1] Malikowski, Steve. "Web Based Courses." Center for Excellence in Education http://cee.indiana.edu/oncourse/.

and the Federal Acquisition Institute has established an online university (http://www.faionline.com/fai/register/main_frm.htm).

ELECTRONIC PERFORMANCE SUPPORT SYSTEMS

Like online educational offerings, electronic performance support systems (EPSSs) promise to play an important role in the future. An EPSS is an integrated computer application that uses any combination of expert systems, hypertext, embedded animation, and other media to assist the learner to perform a task in real time and with minimal support from others. An EPSS provides customized, interactive training in job-specific areas that can actually increase learning retention and allow individuals to exercise judgment in a risk-free environment. Customized programs are developed with customer involvement so that institutional knowledge is imparted. An EPSS offers the student an interactive experience in a simulated workplace. It can be used to build a common culture, breaking down the traditional, siloed organization and increasing communication. The greatest impact from an EPSS occurs when an organization's leadership executives are involved in sending a message down from the top and actually take the training themselves. [2]

As stated earlier, EPSSs should be used to disseminate training on the Team Acquisition roles set forth in Chapter 3. EPSSs would be particularly useful for providing training for those assuming the customer relationship manager role and the product or service market specialist role. The ability to tailor the EPSS for each service and by acquisition type (e.g., systems versus services) is very beneficial.

SUMMARY

As discussed in Chapter 4, the enterprise change acceleration model consists of a three-tier roll-out program, including a senior leader jumpstart program, action acceleration workshops, and rapid improvement teams. While this roll-out program is the nucleus of the study group's solution to accelerate the Revolution in Business Affairs, the enterprise change acceleration model will not succeed without a mission support office headed by a DoD senior leader and sponsored by the Secretary of Defense. The mission support office will have many purposes, but the primary reason for its existence is to sustain positive change initiatives. The mission support office will fulfill this essential goal by providing coaches, education and training, and a knowledge management infrastructure. As is evident by this list, the provision of education and training is a core component of the mission support office and its charge to sustain change. The study group has established two education and training pilot programs that will help further the type of

[2] Croft, Warner, Andersen Consulting. Presentation to the Commercial Business Environment Study Group. 4 December 1998. The study group evaluated Andersen Consulting's EPSS best-practice simulation training as one example of an EPSS. To illustrate its offerings, Andersen demonstrated a computer-based education and training tool it created for Pratt-Whitney and discussed a training program it had created for General Electric.

thinking needed to sustain positive change. Another means of sustaining change is through a corporate university model. The corporate university concept and its importance in institutionalizing reform are discussed in Chapter 6.

Chapter 6
Institutionalizing Change: The Team Acquisition Training Example Using the Corporate University Model

OVERVIEW

A corporate university is a corporate-sponsored workplace learning enterprise for the entire organization.[1] Corporate universities are frequently used to implement and manage corporate-wide change initiatives and also to institutionalize managed change by fostering a learning culture. Corporate universities act as agents for change in their parent organizations. They inculcate the corporate cultures, values, traditions, and goals of their parent organizations. Finally, corporate universities provide a continuous learning capability that enables organizations to identify, distill, and harness the cutting-edge trends, practices, and technologies to achieve organizational objectives. A corporate university is not merely a provider of education—it is a corporate-wide change agent. The DoD needs to embrace the corporate university model to institutionalize the Revolution in Business Affairs within the acquisition and technology (A&T) community.

The Department should adapt the corporate university model within the A&T community—as a philosophical and structured approach that senior leaders can use to implement and manage DoD-wide change initiatives in the A&T community. Senior leadership can use this model to transform the A&T community within the DoD into a learning organization that seeks out and adopts best practices to improve individual and organizational performance. The DoD could use a training program modeled on a corporate university to service the disparate organizations (e.g., requirements, acquisition, and funding) that have been brought together under the DoD enterprise teaming concept (e.g., Team Acquisition). The Office of the Under Secretary of Defense (Personnel and Readiness), which has studied the application of the corporate university concept to the DoD, has offered to provide input on the DoD Team Acquisition training program.

To accelerate the DoD Team Acquisition training program, the role of the Defense Acquisition University (DAU) should be broadly recast in alignment with the corporate university model. Today, DAU exists solely to meet the job training needs of the Department's acquisition workforce. For DAU to play a role in managing and accelerating change using the enterprise teaming concept described in previous chapters, it would need to be recast to embrace corporate university

[1] Barley, Karen, and John Wells, Corporate University Enterprise. Presentation to the Commercial Business Environment Study Group. 6 November 1998.

principles. In this form, its mission will be broadened to serve an additional purpose: nourishing key change initiatives and enterprise teaming within the A&T community. This is a function that the corporate university model serves well. To support the DoD Team Acquisition training program, DAU would need to be refocused and reengineered to quickly adapt and disseminate new business approaches. For information on DAU's current organization and curriculum, see Appendix D.

CORPORATE UNIVERSITY PURPOSES[2]

The purposes of a corporate university that would benefit the A&T community are to:

1. Act as an agent of change;
2. Inculcate corporate or enterprise citizenship, such as the culture, values, traditions, and goals of the organization; and
3. Provide job training.

Each of these purposes is discussed in the sections that follow.

Change Agent Activity

For many corporations, the corporate university is the primary vehicle for driving key organizational change initiatives.[3] The corporate university is the structure used by Motorola, for example, to roll out changes, using the enterprise change acceleration model discussed in Chapter 4. World-class organizations are constantly striving for improvement, and, once established, the corporate university stands ready to sustain all changes and institute new change as the need arises. At Motorola University, change is not a separate component of learning, but rather is integrated into the learning. This is accomplished in two ways. First, Motorola offers a specific course on change management, which addresses a change model, teaching leaders how to manage change, alter targets, and cope with change. Second, Motorola University integrates that change model into every possible course.

Currently, the Defense Acquisition University does not have the capability and is not organized to lead and manage change. DAU would require a new focus and reengineering to act as an agent of change for the A&T community, implement change management into its programs, and facilitate teaming across the enterprise. The enterprise change acceleration model discussed in Chapter 4 provides a

[2] Meister, Jeanne C. *Corporate Universities: Lessons in Building a World-Class Work Force.* New York: McGraw-Hill, Inc., 1998.

[3] Motorola University. Presentation to the Commercial Business Environment Study Group. 18 December 1998.

framework for quickly implementing change. The Department could employ the model to transition DAU quickly into this broader role.

Enterprise Citizenship

"Corporate citizenship" is composed of two elements: the corporation (as represented by its mission) and the citizens (as embodied in the corporation's employees). The corporate university addresses both of these elements. With regard to the corporation and its mission, everything that is done through the corporate university is done to improve the corporation, to meet the mission and goals of the organization.[4] In this way, corporate universities promote a clear message about corporate culture. To inculcate the culture into its corporate citizens, corporate universities must have strong leadership commitment and the personal involvement of senior leaders. Perhaps the best known example of using a corporate university to bring about significant change in a major organization is General Electric (GE), which *Fortune* magazine deemed the most admired company in America in 1998. Jack Welch, GE's chief executive officer, has driven tremendous change at GE, through the help of its corporate university.

With regard to the corporate citizens (or employees), a corporate university recognizes that an organization or activity is only as good as the individuals that support it. Individuals are investments for organizations because they are the medium for helping achieve the organization's goals. Thus, in acknowledgment of the fact that employees are an organization's primary asset, organizations should hire smart, keep employees smart by education and training, and retain those smart employees. Corporate universities enable hiring, educating, and retaining employees because they offer the employee a marketable asset (e.g., a degree), boost employee morale, and build employee loyalty.

Teaming across the DoD A&T business enterprise would build commitment between the A&T leadership and its employees. Enterprise teaming as discussed in Chapter 3 provides the framework for a corporate culture within the DoD A&T community. If recast as an A&T change agent responsible for using the model described in this report, DAU would also be promoting a new corporate culture—an enterprise teaming culture.

Job Training

Job training is the traditional reason for an employer to offer additional education to its employees. DAU and its consortium schools are focused and organized to fulfill this role for the acquisition workforce. However, under the corporate university model, job training is not the only purpose for educating employees. In fact, as illustrated by the Central Intelligence Agency's (CIA's) experience, even

[4] Barley, Karen, and John Wells, Corporate University Enterprise. Presentation to the Commercial Business Environment Study Group. 6 November 1998.

a corporate university established primarily to provide on-the-job training inevitably branches out.[5]

The CIA established Information Technology (IT) University to serve as its corporate university for information technology professionals in its Agency Technology Services (ATS) division. ATS is composed of "computer professionals"—mathematicians, computer scientists, electrical engineers, and other engineering professionals. The IT University was established four years ago with a primary mandate of technology training.

The courses offered by the CIA's IT University are not limited to technical, on-the-job training. The three basic training areas covered by IT University are computing and networking, information management, and management and leadership. In fact, the "soft" skills covered in the management and leadership program—such as communication and management skills—play an important role in the IT University. During the job test analysis performed during the IT University's formation, problem-solving was identified as the number-one skill needed. Consequently, problem-solving has been embedded in the University's School of Management and Leadership as a core course for all enrolled employees.

APPLYING THE CORPORATE UNIVERSITY MODEL TO THE DEPARTMENT OF DEFENSE

As illustrated above, the A&T community (and therefore DoD) would benefit from having training programs modeled on a corporate university—a source of knowledge, skills, and tools that senior leaders could use to implement and manage DoD-wide change initiatives in A&T functions. The envisioned A&T community training programs would promote the learning organization philosophy and encourage the use of best practices to improve individual and organizational performance. To implement the envisioned DoD training program for the disparate organizations (e.g., requirements, acquisition, and funding) that have been brought together under Team Acquisition, the Defense Acquisition University must be refocused and reengineered. To this end, DAU should address the following issues:

- Assessing existing Defense education and training organizations servicing the A&T community;
- Servicing a large, geographically diverse student population through a variety of delivery methods, including team training;
- Contracting out for administration;

[5] The information in this section is derived from: Chahine, Antonette, Chief, Information Technology University, U.S. Central Intelligence Agency. Presentation to the Commercial Business Environment Study Group. 18 December 1998.

- Moving to working capital funding;
- Competitively soliciting providers;
- Continuously evaluating its training program; and
- Addressing labor issues up front.

Each of these goals is discussed below in further detail.

Existing Defense Education and Training Organizations

Establishing the envisioned DoD Team Acquisition training program would require an assessment of relevant existing DoD education and training entities servicing the A&T community. In order to support a DoD Team Acquisition training program modeled on a corporate university, these existing entities would be builders of change capabilities. The following actions would be appropriate to transform entities from educators on rules to builders of change capabilities:

- Review all relevant existing courseware and commit to a plan to streamline and revise the existing curriculum to support the skills and knowledge required for accelerating change.
- Develop new skill and knowledge education tracks to support the enterprise teaming concept.
- Link skill and knowledge tracks directly to the overall vision for accelerating the Revolution in Business Affairs in the A&T community through the enterprise change acceleration model and teaming across the Defense enterprise.

A corporate university generally has arrangements with multiple education providers. Since existing DoD education and training entities offer many A&T functional courses that are extremely useful, some of their courseware would be used for the envisioned DoD Team Acquisition training program. However, while these resources should be used where practicable, it would difficult to rely exclusively on them. Under the corporate university model, these training entities are among the possible education and training providers, even with regard to on-the-job training. For example, acquisition job-related training might be available through the Defense Acquisition University. Alternatively, this material might be taught through the University of Virginia's Northern Virginia Center and the National Contract Management Association's joint noncredit certificate program providing courses (procurement, contract law, financial, and business) that enable students to sit for the Certified Professional Contracts Manager exam.

Similarly, another association—the National Association of Purchasing Management—provides a coordinated series of face-to-face seminars and conferences, CD-ROMs, and a growing list of distance learning opportunities on best practices

dedicated to professional development in commercial supply chain management and operations. Typical topics include supplier relationships, cost management, desired delivery schedule management, and supplier development. The existence of DoD education and training entities and other sources will serve to encourage all providers to develop and offer the best possible courses.

Student Population

The envisioned DoD Team Acquisition training program would service a large throughput of geographically diverse students with a broad experience range. Even so, there would be pockets across the nation where DoD Team Acquisition students are clustered, such as the National Capital area. In light of this mix, the envisioned DoD Team Acquisition training program should both take advantage of partnerships with local education providers and avail itself of technology-based learning. For example, the Patent and Trademark Office (PTO) is centrally located, with 13 buildings in south Arlington (in the Crystal City area), Virginia, so its University uses partnerships with local education providers that offer programs on-site at the PTO. In contrast, the Census Bureau is decentralized, with regional offices across the United States, so that distance learning and other alternative ways to earn credit are far more important to the Census Bureau's corporate university.

One benefit of a corporate university model is the ability of employers to provide, through the corporate university, on-site (i.e., at the employer's location) education. On-site education is a convenience to employees and it allows face-to-face meetings and networking that are important in team development. A natural place for the DoD to provide on-site Team Acquisition education is the Defense Systems Management College or the Pentagon.

The envisioned DoD Team Acquisition training program would use multiple technology formats to deliver education and training to its dispersed workforce. Such formats include videotapes, audio-tapes, intranet, the Internet, satellite-based programming, and interactive desktop videoconferencing. According to the 1999 Annual Survey of Corporate University Future Directions, 20 percent of the training delivered by corporate universities is through the new learning technologies detailed in Appendix E. [6] Using many of these methods, Van Kampen American Capital, the mutual fund group, offers more than 500 self-paced courses to its employees. Van Kampen American Capital University's dean, Tamara Scott, recommends considering the various learning technologies early in the developmental process, asking:

- Does the technology fit the learner's needs?
- Is the technology available?

[6] Corporate University Xchange, Inc. "Executive Summary: 1999 Survey of Corporate University Future Directions" http://www.corpu.com.

- Is the technology justified?
- Does the technology simulate working conditions?

Administration

Given the limitations on building additional DoD infrastructure, it might be advisable for DoD to contract out for the administration and management of the envisioned DoD Team Acquisition training program. Some of the functions that a third-party administrator can perform are noted below:

- Record-keeping;
- Locating partners, courses, and outside students;
- Evaluating potential partners and offerings, and recommending the best-value selection;
- Negotiating partnership agreements;
- Negotiating credit transfer agreements; and
- Acting as liaison between the academic providers and the on-site training staff and government contracting officers.

Funding

Under the typical corporate university model, the university acts as a separate strategic business unit (SBU) that is dependent on organizational support for its continued existence. The government equivalent of this stand-alone SBU approach is created through the use of a working capital fund whereby funding is dependent upon income generated. The CIA's IT University operates under a working capital fund. Alternatively, the PTO University is fully funded from a central fund that is set aside as part of the PTO budget, with no charge-backs to the divisions. The PTO, which is a revenue-generating arm of the federal government, committed $2.2 million to establish and administer its corporate university, with a target audience of approximately 2,000 administrative employees (out of an estimated 5,000 total PTO employees). The Census Bureau uses the charge-back system to recoup monies spent on its corporate university.

DoD's potential use of a working capital fund for the envisioned DoD Team Acquisition training program should be analyzed before it is implemented. While a full working capital fund might not be feasible at the outset, it might be advisable for DoD to move toward such a goal. Thus, after initially using a phase-in of funding, the goal could be to request funding for the DoD Team Acquisition training program through a working capital fund and use the charge-back system to recoup monies.

Competitive Solicitation

The education providers under the envisioned DoD Team Acquisition training program would be selected by awarding a competitive contract. While awarding a prime contract to a major academic provider, with a subcontract for the administration of the corporate university, will work, the reverse is not recommended. That is, generally it is not advisable to establish a prime contract for the administrative services, with subcontracts for the academic programs, because possible termination of the prime administrative contract would also mean losing the academic contract(s).

Examples of the contracting arrangements established at government corporate universities can be seen in the Census University and the PTO University. The Census Bureau contracted directly for corporate university administrative services. Alternatively, the PTO awarded a competitive negotiated contract to the Northern Virginia Community College (NOVA) to run both the academic programs and the administrative services. In turn, NOVA subcontracted the administrative services to Corporate University Enterprise.

Continuous Evaluation

Just as an accelerated reform scorecard is necessary to measure the success of the enterprise change acceleration model detailed in Chapter 4, an ongoing evaluation process would be necessary for the envisioned DoD Team Acquisition training program. Monitoring progress would serve to infuse the program with new energy and to improve it continuously. One possible way to structure the evaluation process is the Kirkpatrick model, which is used by the third-party administrator of the PTO University.[7] This model measures the following four levels:

- Level 1, employee or participant satisfaction, generally is measured by quick electronic mail (e-mail) surveys with scaled (1–5) responses.
- Level 2, knowledge or competence, generally is measured by the grading systems of the education providers, as matched up to an internal matrix reflecting degrees of competence (e.g., an "A" in a particular course could indicate mastery, whereas a "C" could indicate novice).
- Level 3, application of knowledge or competence to the job, generally is captured through telephone or e-mail interviews of participants, supervisors, and peers, asking for scaled responses to changes in the individual (e.g., new activities, promotion, and/or added responsibilities).
- Level 4, impact on the organization, generally requires a longer evaluation period revolving around a series of selected measures (e.g., reduced proc-

[7] Barley, Karen, Vice President, Corporate University Enterprise. Presentation made to the Commercial Business Environment Study Group. 18 December 1998.

essing time, reduced customer service complaints, and/or reduced backlog).

While the envisioned DoD Team Acquisition training program would reduce the time required to evidence an on-the-job impact stemming from the educational experience, the corporate university model nonetheless needs to reach a critical mass of participants before organizational impact would be noticeable. Changes in small groups eventually aggregate, thereby evidencing an impact on the overall organization. The recommended enterprise change acceleration model will cascade learning throughout the A&T community, speeding up the standard time lapse between education and its on-the-job application.

Labor Considerations

Modeling the DoD Team Acquisition training program on a corporate university would have an impact on the DoD workforce. Workforce concerns are best addressed through an open partnership with labor in order to mitigate internal conflict, increase participation, and enhance the credibility of the university within the workforce. Working teams involving labor representatives should address program rules and policies of concern to the workforce. The primary labor concerns that the group can expect to address are found in Appendix F.

Natural work groups, a concept pioneered by Rockwell-Collins, are another means of addressing training-related labor issues. Natural work groups—cross-functional teams, including empowered bargaining units, that make decisions on behalf of Rockwell-Collins—are composed of one management representative for every sixty bargaining units. No written contract for these groups exists. Instead, the work groups are empowered to make decisions. Managers are responsible for setting aside money in the fiscal budget so that these natural work groups can get trained. Beyond that, the work group itself decides who receives training and who covers the work while the person being trained is away from the job. The work group also addresses issues such as scheduling overtime and monitoring vacation policies.[8]

SUMMARY

The DoD should consider establishing training programs for the A&T community that are modeled on a corporate university to sustain—across the entire community—the Revolution in Business Affairs initiatives that will be implemented through enterprise teaming (discussed in Chapter 3) and the enterprise change acceleration model (discussed in Chapter 4). To support the DoD Team Acquisition training program, the Defense Acquisition University, which currently fulfills one of a corporate university's functions—job training—could be refocused and reengineered. DAU, or any other Team Acquisition training provider, must serve

[8] Young, David. Rockwell Collins. Presentation made to the Commercial Business Environment Working Group. 5 February 1999.

the broader functions of acting as an agent of change and inculcating employees into the DoD enterprise teaming culture. The Department could employ the change acceleration model to transition DAU and others quickly. Education and training programs focused on job training alone are insufficient to institutionalize change under an enterprise teaming concept. DoD needs a training program for the A&T community that covers the full spectrum of the corporate university model to institutionalize managed change within the A&T function of the Department.

Chapter 7
Recommendations for Enterprise Teaming and Accelerating Change

This report has identified several means to create enterprise teaming and accelerate the Revolution in Business Affairs. Each essential recommended action is highlighted here.

1. Senior leaders should support the Commercial Business Environment Study Group's envisioned enterprise teaming initiative—Team Acquisition—by embracing three key workforce behaviors:

   a. Good business judgment—not the narrow interpretation of rules—drives DoD business decisions.

   b. Defense professionals have authority equal to their responsibility.

   c. Empowered cross-functional teaming is the norm for ensuring quality results throughout the DoD.

2. The DoD should use the Team Acquisition example to fashion new roles and responsibilities that support enterprise teaming by including cross-functional representation from entities such as acquisition, requirements, and funding communities. The representatives need not undergo job changes to embrace the new mindsets reflected by the following new roles:

   a. The customer relationship manager role, which includes the responsibility for customer satisfaction from one end of the acquisition process to the other;

   b. The product or service market specialist role, which includes the responsibility for achieving the best value for the dollar while managing supplier relationships;

   c. The functional specialist role, which includes the responsibility for expediting the process while safeguarding the public interest;

   d. The staff specialist role, which includes the responsibility for accelerating improvement through identification and promotion of best practices; and

   e. The senior leader role, which includes the responsibility for promoting the vision and removing barriers to achieving it.

3. The DoD should use electronic performance support systems to provide training for Team Acquisition.

4. The DoD should adopt an enterprise change acceleration model, which has been validated by commercial enterprises, to accelerate the Revolution in Business Affairs (e.g., Team Acquisition and other 912(c) recommendations). The change acceleration model should include the following elements:

   a. A senior leader jumpstart program, which serves to mobilize senior leaders to drive the Revolution in Business Affairs faster by setting goals and targets, knowing the plan of attack, visibly leading the attack, and enlisting others in implementing the plan;

   b. Action acceleration workshops, which serve as a mechanism and model to accelerate the Revolution in Business Affairs on a project-by-project demonstration basis throughout the DoD; and

   c. Rapid improvement teams, which use a cross-functional approach to develop program successes throughout the DoD.

5. DoD should embark on an 18-month Revolution in Business Affairs acceleration campaign, from April 1999 through October 2000, to implement improvements through the change acceleration model, using pilot program rapid improvement teams to validate the model.

6. Consistent with the DoD Year 2000 Acquisition Enterprise Scorecard, DoD should measure the success of the change acceleration model in speeding Revolution in Business Affairs initiatives. This can be done by tracking the following areas: DoD outcomes, customer/supplier/employee satisfaction, reform targets achieved, and alignment between achieving targets and using the change acceleration model.

7. A mission support office should be established to sustain the change endeavors initiated under the change acceleration model, by providing the following:

   a. Coaches who will provide change management and facilitation resources while the DoD becomes skilled in such, with the mission of leaving these skills with the team leaders at project completion;

   b. Education and training, which requires the review of existing curricula to refresh promising courses and exclude non-value-added courses; and

c. A knowledge management infrastructure, which, in order to reduce the cycle time for improving business practices to meet customers' needs, will build on the DoD's ability to capture, package, and reuse best practices and lessons learned.

8. The DoD should model training for the acquisition and technology community on a corporate university, and use that training as a source of knowledge, skills, and tools that senior leaders can use to sustain positive change throughout the entire Defense community. To this end, the following should be considered:

   a. Existing Defense education and training organizations for the acquisition and technology community should be assessed for suitability as builders of change capabilities, in competition with other education and training providers.

   b. Administration and management could be contracted out to a neutral third-party administrator.

   c. Working capital funding—if, after analysis, it is used—would use the charge-back system to recoup monies.

   d. Competitive solicitations could be used to establish education providers.

   e. Continuous evaluation would ensure that a DoD training program modeled on a corporate university is used effectively to help the DoD achieve the goals identified during the senior leader jumpstart program and measured on the accelerated reform scorecard.

   f. Early consideration of labor concerns would serve to mitigate internal conflict, increase participation in, and enhance the credibility of the envisioned DoD acquisition and technology training program.

   g. Diverse delivery methods would service a large throughput of geographically diverse students with a broad experience range.

Appendix A
Commercial Business Environment Study Group Participants

GOVERNMENT PARTICIPANTS

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Appendix B
Teaming Success Stories

GOVERNMENT

The DoD has experienced significant benefits from teaming across the enterprise, as evidenced by the Defense Acquisition Pilot Programs.

Defense Acquisition Pilot Programs

The Defense Acquisition Pilot Programs (DAPPs) have already demonstrated that cross-functional teaming is an effective and efficient method for achieving the goals of Acquisition and Defense Reform. The DAPPs were afforded early statutory and regulatory relief (under the provisions of the Federal Acquisition Streamlining Act of 1994) to serve as vanguard experiments in implementing acquisition reform. By taking the concept of integrated products teams to the next level, the DAPPS are illustrative of the dramatic results that can be expected when teaming across the enterprise under initiatives like Team Acquisition.

The following are some of the successes that resulted from the pilot program teams.[1]

The Joint Direct Attack Munitions (JDAM) pilot program team employed commercial practices, commercial items, and new and innovative techniques to achieve lower unit costs, streamlined schedules, and lower development and production costs. The JDAM team reduced unit cost by approximately 60 percent below the estimated requirement cost. Overall, cycle time for JDAM was reduced 35 percent, with a 58 percent reduction in program staffing. The team was also successful in reducing the average unit procurement cost by 50 percent, contributing to an estimated $2.0 billion savings (constant Fiscal Year 1995 dollars) in total program cost. The JDAM team reduced projected operation and maintenance costs by $49.4 million (87 percent) through the use of a 20-year commercial warranty.

The Fire Support Combined Arms Tactical Trainer (FSCATT) pilot program team demonstrated the concepts of dual-use technology applied to Defense programs and the benefits of integrating commercial and nondevelopmental item components into a complete system. The program efficiency gains included a 14 percent

[1] U.S. Department of Defense Pilot Program Consulting Group (PPCG), *1997 Compendium of Pilot Program Reports* with updated information through the 4th Quarter 1998 http://www.acq.osd.mil/ar/ppcg97/ppcp97toc.htm.

reduction in estimated contract cost and a 27 percent reduction in program staffing.

The Joint Primary Aircraft Training System pilot program team achieved a 49 percent reduction in estimated contract cost and a 47 percent reduction in program staffing as a result of streamlining contracting processes and procedures and using commercial processes that have resulted in reduced government oversight.

The Commercial Derivative Engine (CDE) pilot program team capitalized on commercial technology and specifications to achieve a 60 percent reduction in cycle time, a 50 percent reduction in program staffing, and a cost avoidance of $775 million in developmental costs. It is interesting to note that for the same price of a similar government specification engine—the TF39—the CDE engine will provide better fuel economy and better reliability and maintainability. The team expects to avoid $34.6 million in nonrecurring support equipment costs by using commercial logistics support.

The Defense Supply Center–Philadelphia pilot program team has emulated best commercial business practices to eliminate inventory, reduce lead times, lower costs, and in the process achieve greater customer satisfaction. The team has implemented an inventory reduction program that will take it from $2.2 billion in 1987 to 1.4 billion (a 64 percent reduction) by 2001. The implementation of Direct Vendor Delivery and Prime Vendor Delivery programs has increased responsiveness to customers (logistics response time averages 3 days for routine deliveries and less than 24 hours for emergency deliveries) and has contributed to the reductions in inventory. The team also has increased efficiency by consistently achieving over 85 percent of its business transactions with electronic commerce/electronic data interchange technology.

The C-130J (Hercules) aircraft pilot program team used commercial configuration management, quality assurance, and production management to realize total savings of 26.7 workdays per month of administrative work and oversight. The team also projects savings of $10.5 million in maintenance per year, per squadron, through the reduction of required maintenance actions. Additionally, the "nose to tail" basic warranty was doubled from six to twelve months.

INDUSTRY

Teaming with key suppliers has proven valuable to commercial companies such as Honda, Chrysler, Deere & Company, and GlaxoWellcome.

At Honda, the company expects its suppliers to strive for perfect quality, perfect delivery rates, and increased productivity rates, while continuing to grow with Honda. To achieve this, Honda teams with its suppliers to improve processes. Honda now claims an 8-to-1 return on its investments in supplier relations and a 48 percent increase in supplier productivity. In recognition of their importance,

Honda takes one day each year to acknowledge its suppliers for their contributions to the company's growth. [2]

Chrysler Corporation was able to reduce cycle time by teaming with key suppliers. In developing the new Viper car program, Chrysler went from the traditional automotive industry norm of five years to about three years. Key suppliers were an integral part of the team, since ultimately supplier processes drive design. [3]

Deere & Co. is teaming and building better relationships with suppliers in order to involve suppliers more in supply planning and operations. Deere is building a force of 100 supplier development engineers to work directly with suppliers in their factories to help suppliers implement lean manufacturing techniques that eliminate waste. Deere's newest cost management program (JD CROP) involves suppliers in supplier-initiated projects across the spectrum of productions from design to process layout, business practices, logistics, sourcing, and quality. Cost reductions are shared with suppliers for approved proposals. First-year cost reductions at Deere were $200 million. Deere expects to trim $1 billion from the total buy over the first five years. [4]

GlaxoWellcome, a pharmaceutical company, has elevated its purchasing professionals to more strategic processes by creating its E-Business Program. E-Business is a closed electronic loop that empowers the user to initiate orders against budgeted programs at any time without action by the purchasing function. Users are responsible for their budget. Processing orders, verification of authority, confirmation from suppliers, receipt, invoicing, and final payment are all part of the E-Business Program. The company has created its own "Yellow Pages" that help users find and order needed supplies in an electronically controlled environment. The supplies are usually received in 24 hours. Accounts payable has been taken out of the invoice loop by an electronic summary invoice that triggers monthly payment by the electronic funds transfer process. Supply management selects the suppliers and then negotiates price and other terms and conditions to support the E-Business process. The supply management professional is now involved in more strategic supply management processes. [5]

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[2] The information on Honda comes from the following book: Nelson, Dave, Rick Mayo, and Patricia E. Moody. *Powered by Honda: Developing Excellence in the Global Enterprise*. New York: John Wiley & Sons, 1998.

[3] The information on Chrysler comes from the following book: Laseter, Timothy M. *Balanced Sourcing: Cooperation and Competition in Supplier Relationships*. San Francisco: Jossey-Bass Publishers, 1999.

[4] The information on Deere & Co. comes from the following telephone interview: Nelson, R. David, C.P.M., Vice President of Worldwide Supply Management, Deere & Co. Interviewed by Robert A. Kemp, Ph.D., C.P.M., Past President of the National Association of Purchasing Management. 30 March 1999.

[5] The information on GlaxoWellcome comes from the following telephone interview: Straight, Sam, Supply Management, GlaxoWellcome. Interviewed by Robert A. Kemp, Ph.D., C.P.M., Past President of the National Association of Purchasing Management. 30 March 1999.

Appendix C
Case Studies: Successful Use of the Enterprise Change Acceleration Model

An enterprise change acceleration model is the necessary tool for accelerating Acquisition and Defense Reform. This model has been used successfully in industry by organizations such as Motorola and Telstra (Australia's telecommunications company), and is exemplified by General Electric, one of America's most profitable and frequently emulated corporations. Examples from these three organizations illustrate how change acceleration works in corporations throughout the United States.

GENERAL ELECTRIC[1]

When Jack Welch assumed leadership of General Electric (GE), the corporation included 350 businesses split between forty-three business units. Of these units, only three—lighting, power systems, and motors—were leaders in their market segments. Others, such as aircraft engines, used more resources than they returned to GE's bottom line. Welch set out to change this by establishing as a corporate objective the goal of becoming number one or two in any market in which GE competed. Less than two decades later GE is, according to a recent *Fortune* magazine poll, the most admired company in America. According to Jack Welch, he positioned GE to achieve that transformation by, among other things:

- Acting like a leader, not a manager;
- Forging an organization without boundaries;
- Harnessing GE's workforce to create a learning culture; and
- Driving quality throughout the organization.

Welch believes that leaders inspire employees by envisioning where the organization should be in the future and then positioning the organization to achieve the goal. Welch advocates keeping the vision simple. He promotes the vision by spreading the word through a values guide—a wallet-size card—that states the values that are integral to fostering the culture Welch wants for the corporation.

According to Welch, the problem with boundaries is that they create a "not-invented-here" syndrome that leads to corporate stagnation. As Welch wrote in a

[1] The information and quotations in this section come from the following book: Slater, Robert. *Jack Welch and the GE Way*. New York: McGraw-Hill, 1999.

1996 letter to GE shareholders, boundaries "limited our ability to learn from suppliers, our customers, and other global companies that had 'best practices' that would be of enormous use to us."

Welch urges GE employees to take ideas from any source, always with the goal of raising the performance bar. In the past, GE has used ideas generated by Chrysler, Canon, General Motors, Motorola, Ford, IBM, Xerox, and Johnson & Johnson. Furthermore, he has instituted a Corporate Executive Council—a group comprised of GE's 30 senior-most managers, that meets quarterly to share success stories, discuss new initiatives, and create an environment that fosters the adoption of best practices.

GE strives to make quality a priority. Adopting the "Six Sigma" program from Motorola illustrates GE's commitment to making quality a priority. Motorola developed the Six Sigma concept in an effort to reduce the number of production defects in its telecommunications equipment and semiconductor manufacturing operations. Six Sigma—or only 3.4 defects per million operations—is a lofty target for which GE manufacturing activities have been striving since 1995. As is typical of America's premier corporation, most of GE's Six Sigma efforts to date have focused on improving business processes that help GE customers become more productive.

MOTOROLA

Motorola—traditionally a hardware-based company—adopted the change acceleration model to institute large-scale organization changes because most of Motorola's product functionality (75 percent or more) is software driven and some Motorola products were 100 percent software. In order to make the shift to integrate software, Motorola needed to establish software as a stand-alone business and utilize best-in-class processes for software development and reuse. Motorola's ultimate goal was to make itself an organization in which software professionals prosper. As a result of the institutional changes at Motorola, software engineers now hold corporate vice president positions in business lines, Software Engineering Institute Level 5 was achieved in Motorola's main business lines, and Motorola software centers have been established throughout the world.

When Motorola determined that it needed to use a different business model in the new markets in order to build them in shorter cycle times and meet the customers' expectations of cooperation, the organization again used the change acceleration model. As a result of the institutional changes at Motorola, new markets in central and eastern Europe and Africa were opened in record time, country managers were established to coordinate business interactions within their countries, and new rules of engagement were established. The model worked so well that it was replicated for access to Latin American markets as well.

TELSTRA

As for Telstra, this organization used the change acceleration model to thrive in the newly deregulated Australian telecommunications industry. Because of the partial privatization of Telstra, the government-owned, monopolistic utility provider, the company was suddenly faced with the need to consider commercial concerns, such as shareholder value. As a result of the institutional changes at Telstra, the workforce was downsized (from 97,000 to 52,000) to retain the best employees, higher profit margins were achieved while maintaining good market share, and stock value increased (from floating shares initially at A$1.91 to the current trade value of A$8.67). Such positive business results, as achieved through the change acceleration model, were possible only through the superb alignment of senior managers' performance with the company's direction.

KEY SUCCESS FACTORS

Both Motorola and Telstra testify to common factors that were key to the success of their individual change acceleration efforts. Foremost is that the reform endeavor was "owned" and driven by top senior management (e.g., the chief executive officers). To reinforce the message that the change efforts were embraced by top leaders, the initiatives were cast as the work of line managers (not support staff), key messages were communicated through a cascading framework, and the change initiatives appeared on managers' agendas throughout each workweek.

Another shared key success factor was that Motorola and Telstra's reform initiatives were driven by business issues. This meant that business outcomes were the primary focus of the change acceleration teams. Education and training were similarly focused on business outcomes. Further, education and training designed to develop enabling skills—such as teaming—were woven into, and linked with, the business issue in a just-in-time fashion.

The final shared key success factor identified by Motorola and Telstra is that ripple effects of the change initiative were aligned. The work environments were systematically reviewed to determine the ramifications of new ideas and new behaviors. Further, strong messages were sent, through each organization's reward system, to institutionalize new behaviors.

The success of the change acceleration model at organizations like Motorola and Telstra indicates that this model could be used to accelerate the Revolution in Business Affairs.

Appendix D
Potential Department of Defense Education and Training Partners

FEDERAL ACQUISITION TRAINING PROVIDERS

The following explores acquisition-related federal training providers. However, the same logic should be used to inventory and assess the existing federal training providers for other functional areas to assemble the full spectrum of disciplines necessary for the DoD business enterprise. Of particular interest are the extents to which they develop curricula and provide training, and the nature of those curricula. The providers discuss here are the Defense Acquisition University, the Federal Acquisition Institute, and the Treasury Acquisition Institute.

Defense Acquisition University

The Defense Acquisition University (DAU) began operating on August 1, 1992, as a direct result of the Defense Acquisition Workforce Improvement Act. DAU coordinates the DoD acquisition education and training program to meet the training requirements of more than 106,000 civilian and military personnel in the 11 different career fields that constitute the DoD's acquisition workforce. The University was formed as a consortium of existing Defense schools and institutes.

ORGANIZATION

DAU is composed of two entities: the headquarters and the consortium members, who provide training at or near their schools—on-site or by some means of distance learning. DAU's chief executive officer is its president, who reports to the Under Secretary of Defense (Acquisition and Technology). Assisting the DAU president are directors and small staffs for academic affairs, university operations, resources management, and distance learning.

Through its consortium members, DAU provides a full range of basic, intermediate, advanced, assignment-specific, and continuing education courses to support the career goals and professional development of the Defense acquisition workforce. Under the current DAU structure, consortium members remain a part of their existing commands. Most members also offer non-DAU education and training unique to their military department or agency missions. Consortium members include:

- Air Force Contracting/Acquisition Training Center (AFCATC),
- Air Force Institute of Technology (AFIT),
- Army Logistics Management College (ALMC),
- Defense Contract Audit Institute (DCAI),
- Defense Logistics Agency Civilian Personnel Support Office (DCPSO),
- Defense Systems Management College (DSMC),
- Industrial College of the Armed Forces (ICAF),
- Information Resources Management College (IRMC),
- Naval Center for Acquisition Training (NCAT),
- Naval Facilities Contracts Training Center (NFCTC),
- Naval Postgraduate School (NPS), and
- Office of the Assistant Secretary of the Navy, Research, Development and Acquisition.

DEFENSE ACQUISITION UNIVERSITY REQUIREMENTS

DAU's major mission is to meet the training requirements of the Defense acquisition workforce. Two primary factors determine the resource requirements for DAU: (1) how many students are to be taught and (2) what is to be taught.

Defense Acquisition Career Managers

Defense acquisition career managers (DACMs) assist in managing the accession, training and education, and career development of the component's acquisition workforce. The DACMs also determine DAU student throughput requirements.

Functional Boards

Functional boards are the primary determiner of DAU's course curriculum requirements. They provide advice and career management oversight for their functional areas and career fields. Chartered by the Under Secretary of Defense (Acquisition), functional boards are currently established for five functional areas: (1) contracting and purchasing; (2) acquisition management; (3) business, cost estimating, and financial management; (4) technical, scientific, and engineering; and (5) auditing.

CURRICULUM

DAU's Fiscal Year 1999 curriculum consists of 77 courses that cover the 11 career fields. In general, DAU courses provide training in the knowledge and skills required for, and specific to, the acquisition workforce. A recent addition to the curriculum, "Contemporary Approaches to Acquisition Reform" (CAR 805), introduces external best practices and emerging technologies to select advanced students (i.e., those who are certified at the highest career level). Courses in areas such as general supervisory management or automation are not part of the DAU curriculum.

The courses are delivered in various modes, which can be summarized as follows:

- 69 courses are available in resident mode (at or near school locations);
- 24 are available only in resident mode;
- 46 are available for "on-site" delivery (to the student's work site);
- 12 are available through some form of distance learning (3 satellite delivery, 7 computer-based, and 2 available in both forms);
- 4 are available only through distance learning; and
- 1 is a "hybrid," with resident and computer-based portions.

DAU plans to rapidly expand the number of its distance learning courses, with more coming available this fiscal year. DAU's implementation plan for distance learning is available on DAU's Web site (http://www.acq.osd.mil/dau). Together with the curriculum and the number of students, the mode of delivery is becoming a major influence in resource discussion.

The DAU catalog lists more than 20 educational institutions that accept DAU courses, primarily in contracting, for credit toward their curriculum requirements. Also, the American Counsel on Education (ACE) has listed all DAU courses that are more than one week long with a recommended college credit. The individual college determines if and how much credit is to be granted. In the past, several colleges had courses (primarily contracting courses) for which equivalency credit could be granted for DAU courses. Currently one DAU course, "Contracting 101," has college equivalents at 5 different institutions. DAU is continuing to seek such equivalencies.

Federal Acquisition Institute

In 1972, the Congressional Commission on Government Procurement recommended establishing the Federal Acquisition Institute (FAI) as the government-wide focal point for improving the acquisition profession. FAI was created by the Office of Federal Procurement Policy (OFPP) in 1976; FAI receives its policy di-

rection from OFPP. Its major missions include promoting and fostering the development of a professional acquisition workforce government-wide, and promoting the establishment and use, by colleges and universities, of academic programs in the contracting and procurement fields.

PRODUCTS AND SERVICES

While a major function of FAI is the development of training products, FAI also has provided products and services such as:

- Demographic reports on the contracting and procurement workforce in the federal government;
- Guidance on career management programs for contracting and procurement personnel;
- Assistance to colleges and universities in establishing contracting and procurement courses and programs and evaluating the equivalency of those courses in meeting federal training requirements;
- Assistance in identifying and recruiting highly qualified candidates for acquisition fields;
- Development of a desk-side reference, the *Contract Specialist Workbook*; and
- Development of a staffing standards model for contracting activities.

TRAINING DEVELOPMENT

FAI has been active in developing new contracting and procurement curricula and methods of training for the federal workforce. Competency-related courses are based on the most current versions of the Federal Acquisition Regulation (FAR). Other agencies look to FAI to supply these products for their contracting training, and FAI works closely with DAU in its course development. While FAI is a major course developer, it does little in the way of providing training. In essence, FAI creates the products or vehicles, letting other agencies employ them.

However, FAI has been pursuing the creation and delivery of computer-based online instruction. The FAI OnLine University is currently operational and offers two self-paced courses, "Internet Survival Skills" and a "Contracting Officer's Representative (COR) Mentor," designed to be continually updated online references that will provide instant data access as well as serve just-in-time training needs. FAI is also constructing "Contracting Orientation," "Market Research for Acquisition Officers," and "Contract Specialist Mentor" courses to add to its online curriculum. In addition, FAI is partnering with the Arizona State University and the National Association of Purchasing Management to develop both commercial-sector and federal-sector online courses.

Treasury Acquisition Institute

The Treasury Acquisition Institute (TAI) was established in 1993 by the Department of Treasury and the Internal Revenue Service in partnership with other Treasury bureaus, to coordinate and lead efforts to obtain the best possible training for its procurement professionals. Student offerings through this semi-privatized training delivery organization have grown significantly since its inception.

TAI employs a simple operating philosophy; it has a small government staff and a host training facility, but it contracts for everything else (i.e., instructors and support services).

Types of Training Services

TAI supplies resident training to more than 10,000 students annually from more than 20 federal agencies; training is targeted to contracting and related support personnel. TAI offers the following types of training:

- Federal acquisition (contracting) skills training,
- Personal development training,
- Leadership training, and
- Automation training.

TAI does not develop any training; rather, it obtains the training curricula for acquisition courses from FAI and DAU. TAI has purchased some training from DAU consortium schools, but TAI feels it can get the training it needs from other sources at less cost. TAI is waiting to see if the GSA/FAI contract vendor solicitation results in a new alternative delivery source.

Comparison

Because of differences in their individual missions, there are major differences among DAU, FAI, and TAI in the scope of their curricula and the extent to which they develop curricula and provide training. These differences are depicted in Table D-1.

Table D-1. DAU, FAI, and TAI: Curricula and Training Comparison

Institution	Scope of Curriculum	Develop Curriculum?	Provide Training?
DAU	Full range of skill-based training in 11 acquisition career fields	Yes	Yes
FAI	Skill-based contracting	Yes	No (limited)
TAI	♦ Skill-based contracting, ♦ Automation, ♦ Personal development, and ♦ Leadership	No	Yes

While many of the federal training courses are open to all government employees, the course certification process for the DoD and civilian agencies may hinder an employee's ability to make full use of the varied federal government training programs.

COLLEGES AND UNIVERSITIES

This following explores colleges and universities as potential partners in DoD education and training efforts. Colleges and universities frequently offer two programs: a certificate or degree program (undergraduate and/or graduate) and an executive education program. When partnering with a corporate university, these programs may be offered on-site (at the employer's location) or off-site (at the college or university). First, the traditional certificate or degree program is discussed, followed by a discussion of the executive education program.

Certificate and Degree Programs Through Colleges and Universities[1]

Partnering with colleges and universities has several advantages. By partnering with higher-education institutions, organizations benefit from the preexisting curricula (which can always be tailored) and the quality control of those institutions. Additionally, organizations benefit through:

- Developing the ability to leverage the research capabilities of colleges and universities;

[1] Much of the information presented in this section was derived from the Web site of the AACSB, The International Association for Management Education, October 1998 http://www.aacsb.edu/Publications/Newsline/nlsm98a8.htm.

- Becoming employers of choice—for both current and potential employees—by providing certificate and degree programs; and
- Developing a more effective, knowledgeable work force.

Colleges and universities, in turn, have sought alliances with business organizations not only to generate revenue, but also to connect their business curricula to the real world and establish for their students new sources for internships and jobs.

Some examples of these alliances are:

- Case Corporation, makers of earth-moving and agriculture equipment, formed an alliance with the University of California's Haas School of Business when Case changed from a product-driven to a customer-driven organization.
- Bell Atlantic, which has an alliance with 23 State University of New York colleges and the City University of New York, offers an associate degree in telecommunications technology to its union employees.
- The Patent and Trademark Office (PTO), through its third-party administrator Corporate University Enterprise, entered into an academic partnership with Northern Virginia Community College (NOVA).

Of these three examples, additional details on the PTO's partnership with NOVA, the second largest community college in the nation, are offered here. NOVA has placed 60,000 students in credit programs and 120,000 students in non-credit programs.

While the PTO began its corporate university in 1994 through a partnership with NOVA, it has expanded over the years to include ten more programs, both certificate and degree based, at graduate and undergraduate levels. PTO University now has five academic partners: NOVA (for certificates and associate degrees), Marymount University (for bachelor and graduate programs), Syracuse University (for graduate programs), George Washington University (for graduate programs), and University of Virginia (for graduate programs). The programs under the corporate university umbrella are all linked together, with a certificate feeding into an undergraduate program, which in turn feeds into a graduate program. Thus, at the PTO University, NOVA's 18-credit career study certificate can transfer into an associate degree, which can transfer into a bachelor degree, which enables a graduate degree.

The partnership between PTO University and Syracuse University is an executive-level program in public administration and is the PTO University's most expensive offering. The section below offers more details on executive education programs, such as the one between PTO University and Syracuse University.

Executive Education Programs Off-Site at Colleges and Universities

With their focus on developing business leaders within the existing workforce, executive education programs are particularly useful for DoD. Executive education programs typically will offer either predeveloped courses (i.e., open-enrollment programs) that are designed, developed, and delivered to take full advantage of the diversity of experience found in participants from a variety of industries, or customized courses that are designed and developed by the university in conjunction with individual organizations.[2] It is estimated that customized offerings now account for nearly 40 percent of the roughly $3 billion that American companies spend each year on university-delivered executive programs and are growing far faster than the open-enrollment segment.[3]

As discussed in Chapter 5, the Army and the Defense Acquisition University have partnered with the University of Virginia's Darden Graduate School of Business to develop a commercial business environment pilot course. Other colleges and universities offer programs for senior executives in supply management, including the Ely Broad Graduate School of Management at Michigan State University and the College of Business at Arizona State University.

EXECUTIVE EDUCATION PROVIDERS

Although this appendix has highlighted the role of colleges and universities in delivering executive education programs, it is important to note that they are not the only providers in this market. Executive education is a $3.3 billion market, with universities garnering about 25 percent of that market, consultants and training firms about 32 percent, and corporate universities about 43 percent.[4]

One example of an association that provides executive education is the National Association of Purchasing Management (NAPM). NAPM offers management- and executive-level week-long educational programs in conjunction with several leading universities specializing in a purchasing and supply management curriculum. Along with Arizona State University, the association offers a program for senior executives, "Strategy Development and Executive Leadership in Supply Management"; as well as week-long programs, "Global Supply Chain Management" and "The Changing Nature of the Supply Process." "Developing Excellence in Purchasing and Supply Management" is another week-long management program developed by NAPM, in conjunction with Florida State University.

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[2] Darden Graduate School of Business Administration, "Executive Education." 21 January 1999 http://www.darden.edu/execed/index.htm.

[3] Harris, Roy. " A School of Your Own." *CFO: The Magazine for Senior Financial Executives*. April 1997. Quoting Albert Vincere, Associate Dean for Executive Education at Pennsylvania State University's Smeal College of Business Administration.

[4] Kaczorowski, Jim, Darden Graduate School of Business, University of Virginia. Presentation to the Commercial Business Environment Study Group, 20 November 1998.

Executive education programs, such as that developed by the Army and Darden Graduate School of Business, should be reserved for a select number of high-potential individuals. Any future such programs should consider development with schools that are geographically close to pockets of DoD students, or with other executive education providers.

DELIVERY METHODS

Most business schools utilize the traditional, instructor-led format. Within this format, a popular methodology at business schools is the case method. The case method can be a very powerful way of teaching, as it focuses on real issues faced by real managers in real organizations. Unlike lecturing, case method teaching is not the flow of ideas from group leader to participants. Rather, it is the exchange of ideas between and among the leader and the participants.[5]

DoD is currently availing itself of the case method in some instances. For example, several courses in the Defense Acquisition University curriculum use the case method. In addition, the Defense Systems Management College (DSMC) has developed a case study based on the Joint Direct Attack Munitions (JDAM) program that trains students in acquisition reform. The case study, which is promoted on the DSMC Web site http://www.dsmc.dsm.mil/, includes an instructor support package and a student reading package, both designed to familiarize the parties with the case model. Also, as previously mentioned, the Army and the Defense Acquisition University have partnered with the University of Virginia's Darden Graduate School of Business, which uses the case model, to develop a pilot course titled "Competing in a New Business Environment."

Some schools are experimenting with other alternatives to the traditional, instructor-led format. According to *Forbes Magazine,* at Duke University's Fuqua School of Business, almost half of the students in its new online Global Executive M.B.A. program live outside the United States, "commuting" by e-mail from as far away as Switzerland and Hong Kong. These students are willing to pay a premium for the convenience of the remote access and the prestige of a Duke degree: $82,500 (frequently picked up by students' employers), compared with $50,000 for the regular, on-campus M.B.A.[6]

ADVANTAGES AND DISADVANTAGES

A notable advantage of government employees' attendance at a business school is that, because almost all of the students are from the private sector, the government participants can begin to learn what drives the private sector. Further, customized executive education programs offered through business schools can instill the corporate culture, incorporate company-specific examples, and shape teams that

[5] Felton, Edward L. "Teaching by the Case Method and Checklist for Effective Case Method Teaching," EDI Training Materials, 1979 http://www.worldbank.org/html/edi/cases/tips.html.

[6] Gubernick, Lisa, and Ashlea Ebeling. "I got my degree through E-mail." *Forbes Magazine* 16 June 1997 http://www.forbes.com/forbes/97/0616/5912084a.htm.

can take the classroom learnings and apply them to everyday projects back on the job.[7] Also, as with any educational investment in employees, the new skills afforded through the executive education program provide the company with a competitive advantage.

The disadvantages of executive education are its limited throughput and its per student cost, which is high. For example, the industry average for a one-week executive education custom program designed for 30 to 35 students has been estimated at $125,000 to $145,000.[8] Generally executive education programs charge per offering, with the only per-student charges being room and board.

[7] Harris, Roy. "A School of Your Own." *CFO: The Magazine for Senior Financial Executives*. April 1997.

[8] Harris, Roy. "A School of Your Own." *CFO: The Magazine for Senior Financial Executives*. April 1997.

Appendix E
Education and Training Delivery Methods

Education and training providers are exploring new learning technologies—or delivery methods—that augment or replace their current delivery practices. The personal computer and electronic communications systems create a virtual educator's toolbox that did not exist even as recently as five years ago. New delivery methods provide the learner with opportunities for education outside the traditional, instructor-led classroom. Previously, the focus of the new learning technologies was improving access to learners disadvantaged by distance, work practices, or lifestyle. Today, however, interest in the new technologies is no longer limited to distance education applications. Emphasis is now placed on how these technologies affect learning and their cost effectiveness compared with traditional training methods. These technologies include the Internet, intranets, Computer-Based Training-Text, CD-ROM, multimedia, satellite videoconferencing, advanced technology-interactive classrooms, and electronic performance support systems.

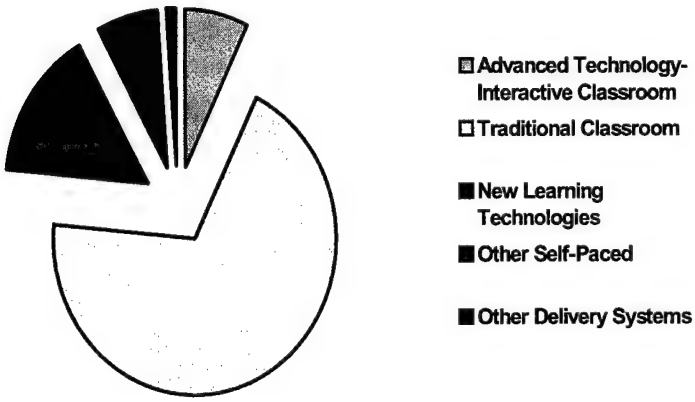
ADVANTAGES OF NEW LEARNING TECHNOLOGIES

New learning technologies can add value to an organization's performance as follows:

- Create flexibility in time, place, and manner of training to suit the requirements of the organization as well as the learner.
- Improve access to learning and contribute to the quality and standards of delivery.
- Provide a means of fostering career-long learning, thereby contributing to continuous improvement and to upgrading, maintaining, and growing the skill level and knowledge base of the workforce in changing conditions.
- Enable individual, interactive methods of learning that can be more effective for some learners than classroom delivery methods.
- Materials are always available and can be easily updated.
- Provide accountability snapshots of an organization's investment in, and measured outcomes from, learning and development.

The American Society for Training and Development indicates that the use of these new technologies is growing to meet the needs of learners and their employers. Figure E-1 represents the use of the various categories of learning technologies as of 1996. [1]

Figure E–1. Percentage Use of Learning Technologies



Each of the aforementioned new learning technologies is briefly discussed below.

The *Internet*, started by the U.S. Government, is a loose confederation of computer networks around the world that are connected through several primary networks. Most larger organizations and many small organizations have developed *intranets*, any network contained within a single organization. The Internet and local intranets provide access to an enormous array of information and the ability to communicate via electronic mail (e-mail). With the remarkable growth of the World Wide Web, a graphical interface, the information contained on the Internet has become even more accessible.

Computer-Based Training (CBT)-Text involves the dissemination of text for instruction via any electronic means. Many organizations have Web sites from which students can download textual information to their laptop or desktop computers. Students can also access information from their CD-ROM drives. *CD-ROM* technology provides a format and system for recording, storing, and retrieving electronic information on a compact disk.

Multimedia applications, commonly distributed on CD-ROMs, use any combination of text, graphics, audio, animation, and video. Interactive multimedia enables the learner to control the training, including content sequence.

[1] The raw data for this chart came from The American Society for Training and Development. October 1998 http://www.astd.org/virtual_community/library/.

Many organizations have used *satellite video-conferencing* for their training needs. With the greater bandwidth and the development of less expensive video and communication technologies, the exchange of audio and video between individuals or groups at multiple sites using the Internet and personal computers is becoming commonplace.

An *advanced technology-interactive classroom* integrates instructor-led classroom training and, to various degrees, the learning technologies described above.

An *electronic performance support system (EPSS)*, a leading-edge technology, is an integrated computer application that uses any combination of expert systems, hypertext, embedded animation, and other media to assist the learner to perform a task in a risk- free environment, in real time, and with minimal support by other people. When faced with a performance task, an EPSS may be able to answer such critical questions as: "Have I forgotten anything?" "What do I do next?" "Where can I find further information?" and "Can I see an example?" While an EPSS may remove the instructor from the delivery of the product, an expert's knowledge is necessary to assemble the information in a useable, learner-friendly manner.

Advantages and Disadvantages of Online Education Offerings

Because of the important role the Internet and its online education offerings play in today's technology-based environment, the advantages and disadvantages of these online education offerings are discussed here. Online learning technologies are cost-saving, reliable, and effective learning tools that are generally easy to operate, and the systems are continuously improving. Additionally, education and training providers and learners are no longer geographically restricted—online education and training providers can offer their courses globally to a wide range and large number of students, while learners can select the very best from the globally marketed online courses.

On the other hand, online courses raise infrastructure concerns. First, users must have access to personal computers and other technology to avail themselves of online courses. Second, those users will likely need technical support, should any problems arise in their access to, or use of, an online course. Further, system security issues may arise while students attempt to download information from the Internet, depending on how their internal systems are configured. While intranets and CD-ROMs can be used to avoid such downloading problems, not all online technology is well suited to these workarounds.

This sea change in education has not developed without some criticism. "It goes against what Harvard stands for in terms of the learning process," said James Aisner, a spokesman for the Harvard Business School. "Being together, talking to people in the dorms or residence halls, is an essential part of the learning process

here."[2] Indeed, many emphasize the continued need for students to personally interact in today's technology-based environment. While online exchanges are possible, some feel that the essential skill of team participation is best achieved through face-to-face interaction.

However, some studies indicate that students who learn via the Internet may perform better than those in a conventional classroom setting.[3] The key, it would seem, is engaging the students' interest with relevant material. Acquiring information from a personal computer is easy, but learning from computers is much more complex because the information provided may not always be relevant.[4] To be successful, online courses must:

1. Include active learning;
2. Have high elements for motivation designed into the system;
3. Include strong user involvement and/or engagement;
4. Apply methods that permit learners to succeed in a risk-free environment; and
5. Allow the user to confront a program that is practical, productive, and proficient.[5]

[2] Gubernick, Lisa, and Ashlea Ebeling. "I Got My Degree through E-Mail," *Forbes Magazine* 16 June 1997 http://www.forbes.com/forbes/97/0616/5912084a.htm.

[3] *New Scientist* magazine, a British scientific journal, reported that an experiment with 33 sociology students at a U.S. university found that students who learned on the Internet scored 20 percent higher in examinations than those taught in the classroom. Jerald Schutte, a professor at California State University in Northridge, found after dividing his statistics class into two groups—traditional and online—that the online group also spent more time on classwork, understood the material better, and collaborated more http://foxnews.com/scitech/013097/internetclass.sml.

[4] Hawkins, Bob. Self-Directed Learning: "Changing from Andragogy to Cybergogy." Norfolk, Va.: Naval Center for Acquisition Training.

[5] *Ibid.*

Appendix F
Considerations for a Labor Partnership Working Group[1]

Chapter 6 of this report discusses institutionalizing change through a DoD corporate university model. Since a DoD training program modeled on a corporate university would have an impact on the DoD workforce, working teams involving labor representatives should address corporate university rules and policies of concern to the workforce. The considerations that the working teams could expect to address, as a minimum, include the following:

- Cost reimbursement
  - Does a cap apply?
  - Must the student personally pay for the course or will the organization pay for it up front?
  - Is reimbursement based on the grade received in the class?
  - How is reimbursement of nongrade (e.g., pass/fail) classes handled?
  - What cost elements will be covered (e.g., tuition, textbooks, and parking)?
  - Is repayment for dropped or below-passing-grade courses expected?
  - Is reimbursement based on an average grade for all classes or the grade for a given class?

[1] The majority of the material in this appendix is based on: Wells, John, President, Corporate University Enterprise. Presentation made to the Commercial Business Environment Study Group, 8 January 1999

- Is a continuing service agreement required, and what are the terms of such an agreement? (For example, in exchange for the professional growth it offers its employees, PTO University requires students to enter into a continuing service agreement that obligates one month of government service—at the PTO or elsewhere—for each credit earned, or reimbursement of government-paid tuition if the required service time is not met.[2])

- Benefits
  - Will promotions—now or in the future—result from attending specific classes?
  - Are classes designed to qualify students for specific jobs?
  - Will new jobs automatically be opened to students who take specific courses?
  - Is certain training mandatory to retain an existing job?
- Class time and location
  - Can courses be taken during duty or work hours?
  - If so, will the employee be excused from some aspect of his or her job performance?
  - Are courses self-paced?
- Provider eligibility
  - Will only corporate-university-sponsored providers be permitted?
  - If providers outside the corporate university may be used, is an approval process necessary?
- Passing grades
  - Will the corporate university have a universal passing grade, or will each of its educators have its own?

Handling these considerations up front through working teams that include labor representatives will strengthen the effectiveness of a DoD training program modeled on a corporate university.

[2] Barley, Karen, Vice President, Corporate University Enterprise. Presentation made to the Commercial Business Environment Study Group. Logistics Management Institute, McLean, Va., 18 December 1998.

Glossary

Definitions of Abbreviations and Acronyms

ACE	American Counsel on Education
AFCATC	Air Force Contracting/Acquisition Training Center
AFIT	Air Force Institute of Technology
ALMC	Army Logistics Management College
AS	Allied Signal
ATS	Agency Technology Services Division, Central Intelligence Agency
CBT	Computer-Based Training
CDE	Commercial Derivative Engine Pilot Program
CIA	Central Intelligence Agency
COR	Contracting Officer's Representative
DACMs	Defense Acquisition Career Managers
DAPPs	Defense Acquisition Pilot Programs
DAU	Defense Acquisition University
DCAI	Defense Contract Audit Institute
DCPSO	Defense Logistics Agency Civilian Personnel Support Office
DMC	Defense Management Council
DoD	Department of Defense
DSMC	Defense Systems Management College
EDI	Electronic Data Interchange
e-mail	Electronic Mail
EPSSs	Electronic Performance Support Systems
FAI	Federal Acquisition Institute

FAR	Federal Acquisition Regulation
FSCATT	Fire Support Combined Arms Tactical Trainer Pilot Program
GE	General Electric Company
HCA	Head of Contracting Activity
ICAF	Industrial College of the Armed Forces
IPT	Integrated Products Team
IRMC	Information Resources Management College
IT University	Information Technology University, Central Intelligence Agency
JDAM	Joint Direct Attack Munitions Program
MDAP	Major Defense Acquisition Program
NAPM	National Association of Purchasing Management
NCAT	Naval Center for Acquisition Training
NCMA	National Contract Management Association
NFCTC	Naval Facilities Contracts Training Center
NOVA	Northern Virginia Community College
NPS	Naval Postgraduate School
OFPP	Office of Federal Procurement Policy
OSD	Office of the Secretary of Defense
PEO	Program Executive Officer
PM	Program Manager
PPCG	Pilot Program Consulting Group
PTO	Patent and Trademark Office
QDR	Quadrennial Defense Review
SBU	Strategic Business Unit
TAI	Treasury Acquisition Institute